THE HIGH COURT

[2008 No. 56SP]

BETWEEN

BROWNFIELD RESTORATION IRELAND LTD.

PLAINTIFF

AND

WICKLOW COUNTY COUNCIL

DEFENDANT

AND

THE ENVIRONMENTAL PROTECTION AGENCY

NOTICE PARTY

AND

[2005 No. 89SP]

BETWEEN

WICKLOW COUNTY COUNCIL

PLAINITFF

AND

JOHN O'REILLY, BROWNFIELD RESOTRATION IRELAND LIMITED, RAYMOND STOKES, ANNE STOKES, SWALCLIFFE LIMITED TRADING AS DUBLIN WASTE, LOUIS MORIARTY, EILEEN MORIARTY, DEAN WASTE CO. LIMITED (IN RECEIVERSHIP), WILLIAM JOHN CAMPBELL, ANTHONY DEAN, UNA DEAN, SAMUEL J. STEARS AND ROCKBURY LIMITED

DEFENDANTS

AND

THE ENVIRONMENTAL PROTECTION AGENCY

NOTICE PARTY

(No. 3)

JUDGMENT of Mr. Justice Richard Humphreys delivered on the 7th day of July, 2017

1. Wicklow County Council was one of a number of polluters engaging in significant illegal dumping at a huge illegal dump in Whitestown, Co. Wicklow, apparently the largest illegal landfill in the State. Following closure of the site in 2001, when the council envisaged that other dumpers would be paying for remediation, it proposed a scheme of full remediation, processing and removing all non-inert waste at a cost of anything up to €35m depending on the methodology availed of. But when the remediation was actually carried out at public expense, the council spent the much reduced figure of €3.868m, in a process that left at least 93% of the waste on site. The primary question now arising is whether this "*bonsai*" attempt to rectify the site has succeeded in removing environmental risk and if not, what order is required to do so. A further question is whether removal of waste is required to avoid breach of statutory licensing requirements.

Background and general findings of fact

2. This is the eighth judgment of the High Court in this matter, the others being:

(i) *Wicklow County Council v. O'Reilly (No. 1)* [2006] IEHC 265, Clarke J. (8th February, 2006);

(ii) *Wicklow County Council v. O'Reilly (No. 2)* [2006] IEHC 273, Clarke J. (8th September, 2006) reported at [2006] 3 I.R. 623;

(iii) *Wicklow County Council v. O'Reilly (No. 3)* [2007] IEHC 71, Clarke J. (2nd March, 2007);

(iv) *Wicklow County Council v. O'Reilly (No. 4)* [2010] IEHC 464, O'Keeffe J. (7th December, 2010);

(v) *Wicklow County Council v. O'Reilly (No. 5)* (ex tempore, not circulated), O'Keeffe J. (20th December, 2011);

(vi) *Brownfield v. Wicklow County Council (No. 1)* [2017] IEHC 310 (Unreported, High Court, 26th April, 2017); and

(vii) *Brownfield v. Wicklow County Council (No. 2)* [2017] IEHC 397 (Unreported, High Court, 12th May, 2017).

3. The site (Folio 2100 County Wicklow) is adjacent to the Carrigower River and part of the site is within the candidate Special Area of Conservation (cSAC) related to that river. The geology of the site is such that the council's consultants state that "*groundwater in the bedrock is in hydraulic continuity with groundwater in the overburden. The waste sources therefore have the potential to contaminate groundwater beneath the site in the sands and gravels in the underlying bedrock. It is likely that groundwater in the region discharges to the Carriggower (sic) River and therefore any contamination of groundwater at the site has the potential to impact on the Carriggower River via natural groundwater flow*" (White Young Green (WYG) Tier 2 & 3 report, p. 16 (reference to tiers is reference to the different stages in the risk assessment process)).

Illegal dumping 1979-2001

4. Illegal dumping occurred on the site by the council, Swalcliffe Ltd. and other entities between 1979 and 2001. The site was at that time owned by Mr. John O'Reilly. Dumping by the council was facilitated by middle management rather than senior management. The council's senior management say they found out about the illegal dump in 2001 and took steps to close it at that point.

5. The waste on the site consists of three primary waste Zones; A, B and C (also variously described in the papers as landfills nos. 1, 2 and 4). (Incidentally, while the council appeared to dispute the term "*landfill*" as applied to an illegal dump, the EPA code of practice uses the term "*illegal landfill*" in precisely this context.) For reference purposes the rest of the site, on which some waste has also been deposited, can be regarded as Zone D (that is, the entire site minus A, B and C).

6. The council accepts that before remediation, there was non-inert and hazardous waste on site.

7. On 16th October, 2002, Commissioner Margot Wallström of the European Commission issued a letter pursuant to art.226 of the EC Treaty regarding implementation of Council Directive 75/442/EEC of 15 July 1975 on waste, as amended. The letter complains at para. 3 that the council was notified in 1998 that dumping was taking place but took no enforcement action. The Commission was concerned by the indication that the intention was to seal the site rather than remediate. The letter of complaint appears to constitute an "*opening of the case*" by the Commission, and the Department have been trying to close the case ever since. Their main contribution to this end was a detailed response document on 26th June, 2015, following on from their encouragement of the council to engage in direct remediation. However, so far I have not been informed whether the Commission has or has not formally closed the complaint as yet. As noted in the No. 2 judgment, the 2015 response was to some extent inaccurate and contradictory, and presumably the Commission has now been informed of this. Further inaccuracy has now arisen, discussed further below, which also needs to be brought to the Commission's attention. I am informed that the 2015 response document has been removed from the Department's website.

The 2005 proceedings

8. The council initially sought to have the other polluters rectify the site and commenced proceedings in 2005 seeking an order under s. 58 of the Waste Management Act 1996 ('the 1996 Act') in that regard against Brownfield Restoration Ireland Ltd. and various other parties, peaking at 13 defendants at its height.

9. The site was registered to the ownership of Rockbury Ventures Ltd. on 28th July, 2006.

10. Brownfield (the effective parent company of Rockbury) obtained a licence from the Environmental Protection Agency (EPA) on 21st September, 2006, which required that *"[a]ll … non-inert wastes shall be removed off-site to an approved disposal/recovery facility"* (condition 1.3). The application was accompanied by an Environmental Impact Statement (EIS). The extent of the environmental impact assessment is not set out expressly in the decision but is to be inferred therefrom to the extent that the EPA clearly envisaged that removal of all waste would not cause an inappropriate adverse impact on the environment. As the site significantly affects a European site, indeed is part of it, an appropriate assessment (AA) appears to have been required; but this did not happen. The parties were here agreed that the EPA licence format (which Mr. Bland says is still being used) appears to fall short of what is required by the jurisprudence on EIA/AA. This is something the EPA might wish to attend to going forward.

11. The permission envisaged that only inert waste recovered from the site could be re-located on site (importation of waste was prohibited under condition 1.4). A groundwater management system was envisaged (condition 3.19). The council, in objecting to the licence on 21st July, 2004, had sought removal of all non-inert waste following removal and segregation of all waste. Strikingly, having urged this approach on the EPA, the council later adopted a radically different approach, significantly less protective of the environment, when doing the work itself.

12. The licence was renewed in 2011 and fell for renewal again in 2016 when it was refused. The refusal was quashed on *certiorari* by consent and Brownfield's application for renewal is pending. The original EIS was relied on; Brownfield for whatever reason do not appear to have prepared a Natura impact statement (NIS). The EPA (incorrectly) does not seem to have conducted an AA. Presumably the licence itself embodies its views on the EIA process, although that is not absolutely clear either, and in any event its handling of the EIA process does not seem to involve the specificity and detail required.

The 2008 proceedings

13. A second set of s. 58 proceedings was commenced in 2008 by Brownfield and Dean Waste Co. Ltd. seeking orders against the council requiring remediation. Dean Waste never prosecuted those proceedings and effectively dropped out. I have since struck them out as plaintiffs in the 2008 proceedings.

The council's decision to remediate

14. Following contact with the Department, prompted by the European Commission, the council changed tack to remediate the site itself. The first indication of this approach appears on the papers on 19th November, 2010, and the decision to remediate was put into the public domain in 2011. This led to an application to the court to adjourn the 2005 and 2008 proceedings, an application which was granted by O'Keeffe J. (after 23 days of hearing) in the *Wicklow (No. 5)* judgment.

15. From the outset of its DIY remediation process, the council took the approach that "*as much [waste] as possible will be allowed to remain on site*" (email from Mr. Andrew Lawless, Senior Executive Engineer, to Mr. Bryan Doyle, assistant chief executive and Michael Geaney Senior Engineer, of 22nd February, 2012). This was at least a week before the WYG Tier 2 report and 3 months before the WYG risk assessment. The executive decision to allow as much waste as possible to remain on site thus *preceded* the risk assessment. This is a fundamentally flawed approach and completely contaminated the whole approach taken by the council. It was reinforced by the adjustment and amendment of the risk assessment by council officials rather than having a science-driven approach.

16. WYG followed this up with a "Tier 2&3" report in May, 2012. In the Tier 2 report of February, 2012, the water table was shown significantly intersecting with the waste in Zone C at both ends of the zone. In the Tier 2&3 report, this was changed to become a mere glancing blow with the water table, only minimally impacting at the bottom of the waste. The change was essentially due to discounting data that did not fit the council's hypothesis.

17. The council established a Technical Working Group (TWG) to assist with its remediation plan. This included an EPA representative. Whether it was appropriate for the EPA to participate in a non-statutory process of this kind which it would later have to deal with in the exercise of statutory functions is highly questionable and seems to me to have potentially compromised the EPA in its statutory role in relation to this site.

18. At a TWG Meeting No. 7 on 29th May, 2012 (again notably, over 3 months *after* the council had decided on the executive approach of leaving as much waste as possible *in situ*), the more limited remediation approach was pursued. The minutes of the

meeting record that the approach discussed was

> (i) "*Zone A: Excavate/screen the dry, Excavate and dump the wet*"
>
> (ii) "*Zone B – remove hot spots and improve grass coverage*"
>
> (iii) "*Zone C: Cap the zone with impermeable barrier or with good quality clay layer. Not as elaborate cap as in a municipal landfill*"

19. This was followed up with a "*summary remediation plan*" prepared by WYG on 1st June, 2012 and sent with the comment by Mr. Marron "*I hope this meets with your present requirements*". The introduction to this document states that "*in Zone C … all of the waste is located above the permanent water table*". The emphasis on "*permanent*" (a questionable and contested concept) obscures the admitted seasonal rises in the groundwater leaving aside the contention that the so-called permanent water table is in fact above the bottom of the waste. It also comments minimisingly that "*Zone C is contributing a relatively smaller amount of pollution compared to zone A*"; but relative size is questionable given a later memorandum from Mr. Boland dated 6th June, 2012, that calculates costs "*based on Zone C containing a tonnage of waste that is equal to 70% of the tonnage present in Zone A*" and obscures the large absolute size of Zone C. No reference is made to Zone B contacting the groundwater.

20. The memorandum of 6th June, 2012, notes that the cost of capping the waste in Zone C is €500,000 but the cost of excavating and screening the waste would be approximately €2,800,000. The cheaper option was of course chosen.

21. The EPA's Mr. Jim Moriarty (who was a member of the TWG and had been copied with drafts and material) indicated on 27th June, 2012, that he was happy for the remediation plan to be circulated to other parties although (despite this tacit form of approval) emphasised that it should not be referred to as EPA approved. The council reassuringly replied that "*it will be printed as is with a WYG cover etc*."

22. On 22nd August, 2014, a Mr. O'Brien of the EPA wrote to Brownfield, misleadingly stating *inter alia* that "*[t]he requirements of the EPA Code of Practice … were applied by the [Technical Working Group] in assessing the site*". A similar assertion was made in the WYG Tier 2&3 report. It is clear that the code was not complied with – the full extent of non-compliance will be discussed further below. The letter from the EPA goes on to say that "*there is no conclusive evidence from reviewing the logs of boreholes installed during the most recent site investigation that the waste in … Zone C … is in contact with groundwater*". The conclusion is plainly incorrect. In addition, the notion that the EPA are concerned about whether there is "*conclusive evidence*" as opposed to risk indicates a fundamental misunderstanding by the EPA of the precautionary principle and of the legislation it is meant to be applying.

23. It was not until 10th February, 2014 (over 3 years after the decision to remediate) that the council's contractor entered on the site.

24. After remediation the council states that:

> (i) Zone A consists of trommelled material, predominantly construction and demolition waste with "*relatively small amounts of municipal waste and small isolated quantities of hazardous wastes*".
>
> (ii) Zone B consists of predominantly construction and demolition material with "*very small amounts*" of non-inert waste and no "*recorded*" hazardous waste recovered from trial pits or recorded as removed. Zone B was covered with trommelled material from Zone A.
>
> (iii) The council accepts that "*possible small quantities*" of domestic waste are included in Zone C. The council also accepts that there are currently "*possible … isolated items of hazardous wastes*" in Zone C. The word "*possible*" here is misleading. Mr. Connolly accepts that there is some such waste but it is not typical. Mr. Michael Boland appears to be the author of the document in which this phrase occurs, and characteristically (as we shall see) has chosen a term with minimising, obfuscating connotations. Why Mr. Boland could not have said in his document that he believed small amounts were present I do not know.

25. The council stated that they would be seeking €1.6m from Swalcliffe (out of a total cost of €2.023m for Zone A and €3.868m overall) on the basis that 97.4% of the cost relating to Zone A is a matter for Swalcliffe. Swalcliffe has previously effectively accepted responsibility for Zone A. However in the end the council did not pursue this because Swalcliffe does not seem to have the money at present. Apparently, on 18th February, 2010, Mr. Louis Moriarty of Swalcliffe and Swalcliffe Ltd. itself were fined in Dublin Circuit Court for the offence involved, but apparently it was pleaded in mitigation that a substantial sum (in the order of €1m) was being put aside to pay for remediation. That sum was never paid, and now appears unrecoverable. One wonders what the accountability is for such an unacceptable situation.

26. On 24th November, 2014, the elected members were told that the efforts at remediation had effectively concluded. At present the council retains possession of the site for the purpose of fairly occasional monitoring about once every 6 months.

27. In January, 2015, Brownfield sought access to the site in order to carry on further tests. Mr. Boland copied a number of parties in this regard including Mr. Moriarty of the EPA. There is no apparent rationale for ongoing involvement of the EPA, the TWG having long finished its efforts (even assuming that it was appropriate for the EPA to be involved in the TWG in the first place, which I would not accept; indeed, its involvement appears to have somewhat potentially compromised its position given the contradiction between the full remediation required in the EPA's formal decision and the bonsai effort signed off on by Mr. Moriarty). Mr. Boland's memorandum is defensive and contains an unsatisfactory mix of an attempt at scientific response to Brownfield's data and an official indignation at the tests carried out without permission. Such a conflict of roles impinges on the scientific objectivity being brought to bear. The scientific response is minimising, in that the finding of contact between waste and groundwater in Zone C is simply dismissed as being an expected finding and thus not a big deal. The usual qualifiers of limited and seasonal are rolled out. However, it is clear from the Brownfield figures that the groundwater was in significant contact with the waste, even before allowing for a seasonal variation of up to 2.3 m.

Resumed hearing of the proceedings

28. A resumed hearing commenced before me on 7th March, 2017. The transcripts of the hearing before O'Keeffe J. were admitted in evidence by consent but some witnesses were examined again.

29. In *Brownfield (No. 2)*, I dealt with Module I of these proceedings (having earlier directed a modular trial in the No. 1 judgment). In the No. 2 judgment I set out certain findings of fact, rejected the theory that the council acted *mala fides*, determined that the council's remediation of the site was in violation of EU law, and rejected the council's preliminary objection to the proceedings.

30. In relation to those preliminary objections it is noteworthy that the Department of the Environment, Heritage and Local Government (for the purposes of waste management functions now the Department of Communications, Climate Action and Environment) wrote to the Judicial Studies Institute on 28th October, 2010, suggesting that there was a perception of "*a weakness in the efficacy of enforcement actions*" and "*[a] lack of awareness on the part of the Court system of the need to ensure outcomes required by the ECJ ruling* [in Case C-494/01 *Commission v. Ireland* EU:C:2005:250 [2005] ECR-I 3331] *within a reasonable time*" thereby possibly leading to further enforcement action. It is perhaps somewhat contradictory that, on the one hand, the Department as conduit for EU law is in effect asking the judiciary to take a more informed and vigorous approach to environmental enforcement, while on the other hand it is funding the council in this case to have made submissions (some of which I rejected in the No. 2 judgment, and others I deal with here) that environmental law should be read in a narrow and limited manner, inhibiting effective enforcement.

31. The background to the actions is further addressed in the No. 2 judgment, which should be read in conjunction with this judgment.

Procedural issues since the Module I judgment

32. The parties are represented as follows:

(i) for Brownfield, Mr. Peter Bland S.C. and Mr. Michael O'Donnell B.L. addressed the court;

(ii) for Rockbury Ventures Ltd., the same lawyers also appeared;

(iii) for the council, Mr. James Connolly S.C. and Mr. Damien Keaney B.L. addressed the court;

(iv) for Mr. O'Reilly, Patrick V. Boland & Co. Solicitors are on record (a matter I deal with below) but did not appear;

(v) for Swalcliffe, Mr. Eoin Kidd B.L. appeared (Mr. Paul O'Grady B.L. and Mr. Vincent Shannon, Solicitor, also briefly addressed the court) and moved an application to come off record, a matter I deal with below;

(vi) for Dean Waste, A&L Goodbody Solicitors are on record but did not appear;

(vii) for the EPA, I heard from Mr. Alan Doyle, Solicitor (Mr. Joseph Richardson B.L. also attended but in a watching brief capacity);

(viii) the other defendants named in the 2005 proceedings have previously been stuck out.

33. Since the No. 2 judgment, I have dealt with a number of procedural applications as follows.

Re-entry against Swalcliffe

34. In relation to the council's motion to re-enter the 2005 proceedings against Swalcliffe, on 18th May, 2017, I granted the relief sought, without objection from the existing parties, noting that at this stage the council did not seek to move an application for Swalcliffe to contribute to the cost of remediation. That application was adjourned to travel with the 2005 action.

Position of Rockbury

35. In relation to the council's motion to add Rockbury to the 2005 proceedings, on 18th May, 2017, I acceded to that application, without objection from the existing parties, added Rockbury as a 13th defendant to the 2005 proceedings, directed service of an amended summons on Ivor Fitzpatrick, Solicitors, for Rockbury, and dispensed with service of other documentation by consent. I directed that the amended summons would be returnable before me on 23rd May, 2017, so as to facilitate the continued progression of the proceedings.

36. In response to this, on 23rd May, 2017, Rockbury indicated that it would transfer the ownership of the site to Brownfield and this appeared to be acceptable to the council. On 15th June, 2017, following the transfer, the council asked for Rockbury to be struck out of the 2005 proceedings, an order that I made on consent. The application to add Rockbury as a notice party to the 2008 proceedings thus fell away.

Representation of Mr. O'Reilly

37. In relation to Messrs. Bolands' position as solicitors for Mr. O'Reilly, Bolands previously filed affidavits (e.g., an affidavit of John O'Reilly filed on 15th December, 2006) but at some point Mr. O'Reilly began to act for himself. However no notice of discharge of solicitor appears to have been filed or served and no order to come off record was produced. Thus on 18th May, 2017, I made an order deeming Bolands to still be the solicitors on record and gave liberty to apply in that regard. No such application was made, so Bolands remain on record.

Position of the EPA

38. In relation to the position of the EPA, Alan Doyle, Solicitor appeared (unbidden by the court or the parties) and indicated that he was available to assist the court should that be necessary. On 23rd May, 2017, I added the EPA as a notice party in order to facilitate any submission that might be thought necessary by anyone. Mr. Doyle then indicated that he would like time to take instructions as to whether he wished to challenge or nuance anything in the Brownfield No. 2 judgment. Mr. O'Donnell put down a jurisdictional marker and a query as to whether the EPA had sat on its hands during Module I (having had counsel present at all times in a watching brief capacity but without intervening until after the judgment had been delivered). I adjourned the issue until 25th May, 2017, to hear from the EPA as to whether they would be taking issue with anything in the No. 2 judgment. At that stage Mr. Doyle helpfully indicated that he was not making any application challenging anything in the No. 2 judgment. The existing parties did not ask for him to come back actively in the proceedings after that; nor did he do so of his own motion. However given that the EPA has been a notice party throughout Module II, its involvement did not depend on being invited to make submissions; it has simply not

done so.

Representation of Swalcliffe

39. In relation to the application by Shannons Solicitors for Swalcliffe to come off record, on 23rd May, 2017, I granted this motion. Swalcliffe are therefore currently unrepresented but that is by their own act in effect and does not prevent the proceedings from being progressed, whether in general or against them specifically.

Brownfield's 2007 proceedings

40. It emerged during the hearing that Brownfield's 2007 proceedings [2007 No. 1541P] against the council, the county manager, Mr. Sheehy, Swalcliffe, Louis and Eileen Moriarty and A1 Environmental Management Ltd. had been served, with appearances entered by all parties. However Brownfield had not progressed this matter further. I directed that the case be listed for 14th June, 2017, for the purposes of including it in the management of the present proceedings as there was clearly a significant potential overlap, particularly in terms of the respective liability of the parties. On that date Brownfield indicated they were not proceeding with the 2007 proceedings and I struck out those proceedings against the council, the county manager and Mr. Sheehy, on Brownfield's undertaking to serve notice of discontinuance on the remaining defendants forthwith.

Possible further proceedings

41. In a discussion on the 2007 proceedings, Mr. Bland intimated the possibility of bringing further hypothetical High Court proceedings against the council depending on what happens in this case. I was somewhat concerned about the proliferation of proceedings in relation to this matter given that there have been at least 6 High Court actions regarding this issue one way or the other (the 2005, 2007 and 2008 actions referred to above together with a defamation action between Mr. Ó Laoire and Brownfield, an action for breach of contract and duty between Mr. Ó Laoire and the council and a judicial review between Brownfield and the EPA which was ultimately resolved). The prospect of yet further High Court proceedings being superimposed on the situation after 12 years of litigation seems to me to require some degree of management if there is not to be a further 12 years of litigation. I therefore directed that until such time as I complete dealing with the 2005 and 2008 proceedings, if the parties commence any further proceedings against each other connected to the matters the subject of these proceedings, they should forthwith apply to me to address the question of managing those proceedings appropriately in the context of the sequential modularisation of the existing proceedings.

Disposal of 2005 proceedings

42. On 27th June, 2017, Mr. Connolly indicated that he was not proceeding with the 2005 proceedings against Brownfield, so I struck those proceedings out against Brownfield and adjourned them generally against the remaining defendants, on Mr. Connolly's application.

Scope of Module II

43. In the present judgment I now deal with Module II of the proceedings, which relates to the following issues:

(i) Did the remediation comply with the EPA Code of Practice and the ministerial circular? [Q5(vi) in the issue paper]

(ii) Apart from the issue of direct contact with the groundwater (dealt with in Module I), did the remediation comply with the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) and the EPA Report on Groundwater Discharges? [Q5(vii) in issue paper insofar as it was not dealt with in Module I]

(iii) Is there a current environmental risk arising from waste on the site? [Q5/5(iv) in the issue paper]

(iv) Is the council disposing of waste by means of long-term storage without a licence? [added by agreement]

(v) Should an order for remediation be made? [Q7 in the issue paper]

44. A large number of detailed factual issues are in dispute, and I will address these primarily on a witness-by-witness basis, setting out some findings of fact, for convenience, under the heading of whichever witness appears appropriate. However in any such finding, it should be taken as read that I have also considered all evidence bearing on the problem including that emanating from other witnesses. I will address some of the other major findings of fact separately under later headings.

Consideration of witness testimony

(A) – Witnesses put forward by other parties to the 2005 proceedings

45. Some reliance is placed on affidavits put forward by other parties to the 2005 proceedings by deponents who have not been cross-examined by the present parties.

John O'Reilly

46. Reliance is placed on John O'Reilly's affidavits of 15th December, 2006, and 26th October, 2007, as to the nature and extent of council dumping. I considered this evidence in Module I and my findings there apply to this issue.

Sam Stears

47. As noted in the Module I judgment, the council's illegal dumping was likely to have encouraged others to dump also. In the affidavit of Sam Stears of 8th February, 2008, he avers at para. 8 that "*Mr. O'Reilly also stated that Wicklow County Council was bringing waste into the site. I called into the site a few times when I was passing and on one visit, the Wicklow County Council overseer, Mr. John Mullen was pointed out to me by one of the drivers. The letter relating to planning, the assertion provided by Mr. O'Reilly in relation to the use of the site by Wicklow County Council, and the presence of the Wicklow County Council overseer Mr. John Mullen at the site when our vehicles were depositing material there, convinced me and Dean Waste Co. Limited that it was legal and appropriate to send this waste to the Whitestown Quarry*".

48. Mr. Stears in his affidavit of 17th September, 2008, further avers at para. 12 that "*I understand that when the Plaintiff contacted*

the originators of the documents found on the Whitestown site, a considerable number of potential collectors were nominated as being possibly responsible for collecting that waste. I understand that the waste contractors so named included Swalcliffe Limited t/a Dublin Waste, IPODEC, Information Security Management, Orange Skip Hire, Murphy Waste, Ecosafe Systems, Sita Recycling, Smurfit Recycling, Letterkenny Skip Hire, Noble Waste, Shreddit, Andrew Phibbs, Thorntons Recycling, Fingal Recycling, National Waste Management, Westside, Greenstar, Hannay Recycling, Abacus Waste, A+A Waste and Dublin City Council as well as A1 Waste, (Dean Waste), i.e. twenty two companies. It is noteworthy that the Plaintiff has not joined all of these other persons in these proceedings".

49. The foregoing averments have not been challenged and I would accept them.

(B) – Witnesses put forward by the council

Edward Sheehy

50. Mr. Sheehy's original affidavit of 14th July, 2005, includes the following averments on which reliance is placed by Mr. Bland:

(i) Para. 11, waste in Landfill No. 1, Zone A included, "*Waste uncovered included human health care waste …*", "*I say and believe that the waste dumped in this area has already caused and is causing environmental pollution*".

(ii) Para. 12, waste in Landfill No. 2, Zone B includes, "*…large amounts of corrugated iron and general farm machinery including what appeared to be the remnants of a combine harvester. Additionally the landfill contained what appeared to be the burnt out remains from a public house fire including furniture and scorched beer barrels. Plastic barrels containing trace elements of chemicals and empty metal drums labelled with corrosive chemical labels were also un-covered. There were other barrels with anti-fouling chemicals labels*", "*I say and believe that the waste dumped in this area has already caused and is causing environmental pollution*".

(iii) Para. 14, in relation to Landfill 4, Zone C, "*I say and believe that waste dumped in this area has already caused and is causing environmental pollution*".

51. I accept that evidence as representing the position as of the date of that affidavit. Following the council's revision of its position and the decision to remediate, Mr. Sheehy's views on whether or not there was or would be environmental pollution or on the nature of material dumped by the council moderated somewhat, but those more recent views rely on information received from others and are not of any particular weight in the current context.

Donal Ó Laoire

52. A number of averments by Donal Ó Laoire in his affidavit of 14th July, 2005, are relied on by Brownfield. Mr. Ó Laoire's position is somewhat compromised by adverse findings in Module I but his evidence as to what he found on site is part of the council's case and has not been challenged by Brownfield. The relevant averments relied on are as follows:

(i) Para. 15, relating to Landfill No. 1, "*During this initial inspection I observed gas bubbling through waste puddles on the surface. Parts of surgical gloves were observed on the surface. All these parts of gloves seemed to have been systematically cut or shredded. Further examination of the surface revealed small amounts of broken glass, shredded tin cans, and medical equipment such as masks, syringes, surgical gloves and theatre gowns at surface level*".

(ii) Para. 25, "*The trenching process undertaken in Landfill No. 1 demonstrated that a large amount of un-segregated commercial waste was contained within Landfill No. 1*", "*General domestic organic waste was also evident in the material excavated in Landfill No. 1*", "*Random chemicals including printing inks, paints and aerosols were detected in the excavated trenches. In addition, the excavated trenches contained construction and demolition waste*".

(iii) Para. 26, relating to Landfill No. 1, "*Dumped materials recovered included bio-hazardous waste, domestic organic waste, chemical waste, some of which would be classified as hazardous in accordance with the Second Schedule of the Waste Management Act 1996, as amended. Vapours released during excavation were a rotting pungent smell and leachate streams were malodorous, suggesting that considerable rotting of organic materials was taking place in that area. The waste was not inert and large pools of perched leachate (water into which mobilised contaminants had leached) were present within the waste body*."

(iv) Para. 32 relating to Landfill No. 2, Zone B, "*The waste was deposited throughout Landfill No. 2 and is some areas the waste was buried to a depth of 7 metres*", "*The excavation of trial holes showed the waste to include large amounts of corrugated iron and general farm machinery including what appeared to be the remnants of a combine harvester. Additionally the landfill contained what appeared to be the burnt out remains from a public house fire including furniture and scorched beer barrels. Plastic barrels containing trace elements of chemicals and empty metal drums labelled with corrosive chemical labels were un-covered. There were other barrels with anti-fouling chemicals labels, but the amount of residue was not observed were not significant*."

(v) Para. 36 relating to Landfill No. 4, Zone C, "*The trial pits were dug to approximately 7 metres, this being the extent of the mechanical digger arm and did not strike undisturbed ground.*"

(vi) Para. 37, "*Materials taken from trial holes in the Landfill No. 4 area revealed plastic bags bearing the printed name "A1 Waste" with contact telephone number 01-4505501 thus linking this waste to the eighth-named Defendant....*"

(vii) Para. 38, relating to Landfill No. 4, "*The co-mingled waste included commercial, industrial and domestic waste.*"

(viii) Para. 39, "*From my investigation I concluded that the deposition of waste in Landfill No. 4 which was not inert and containing biohazard, chemical and organic fractions with an observed capacity to mobilise and migrate as leachate and gas constituted an environmental risk*"

(ix) Para. 49, "*I classified the types of wastes recorded on site in accordance with the European Waste Catalogue & Hazardous Waste List (EWC) classification system as follows*:

- *20 00 00 Municipal Wastes*
- *18 00 00 Human Health Care Wastes*
- *13 00 00 Oil Wastes*
- *17 00 00 Construction and Demolition Wastes*
- *02 00 00 Food Preparation and Processing Waste*
- *09 00 00 Printing and Photographic Waste*
- *15 00 00 Packaging and Protective Clothing."*

53. I accept the foregoing evidence. Mr. Ó Laoire's investigations therefore indicated significant quantities of hazardous waste on the site. If one looks at what was removed from the site (very little in relative terms from Zone B and nothing from Zone C) it follows that a great deal of hazardous waste remains in place.

54. The trommelling of waste in Zone A identified 3.84 tonnes of hazardous waste which, while minor in the context of the large body of waste excavated from that zone (119,000 tonnes), is a significant amount in absolute terms. A confusion between absolute and relative significance appears to have affected the council's approach throughout. Issues that have arisen that are minor in relative (but not absolute) terms are minimised to vanishing point and are referred to as merely trace elements. Given the nature of the process applied to the waste in Zone A, it is more likely than not that hazardous waste was trommelled with non-hazardous waste in breach of EU law.

Ronald J. Russell

55. Prof. Russell's position has also been somewhat undermined by some of the matters that apply to Mr. Ó Laoire; particularly his membership of the syndicate discussed in Module I and the fact that he was involved in the partnership joining a defamation action in relation to allegations the sting of which was known to be true. Nonetheless, his evidence as to what he found on site is part of the council's case and was not challenged by Brownfield. He undertook examination of the site in 2005, prior to the limited remediation. The following averments in his affidavit of 14th July, 2005, are particularly relied on by Mr. Bland:

> (i) Para. 5, waste in Landfill No. 1, "*A number of items of clinical origin were collected from the area of excavation and were taken to a shed adjacent to the house on the lands, then occupied by the first-named Defendant. Here, I tested a number of items for the presence of blood using the standard Kastle-Meyer test under controlled conditions. The items tested included bandages and dressings, cannulas, hypodermic needles and syringes. Many of these proved strongly positive for the presence of blood indicating a contaminated state. Furthermore, intravenous lines, assorted plastic tubings, sample containers and other clinical materials showed no evidence of having been autoclaved (having been subjected to high temperature sterilisation treatment) as would be appropriate for such material before being discarded*".
>
> (ii) Para. 6, "*I say that I was present at excavations on each of the Landfills Nos. 1 – 4. I observed a wide range of waste materials including domestic, industrial, commercial and agricultural, predominantly in Landfills 1, 2 and 4. In addition there was clinical waste found in Landfill No. 1 and some hospital waste (though not of clinical origin) was found in Landfill No. 4", "Several metal 10 gallon containers leaking what appeared to be old engine oil were present in the deep excavation in Landfill No. 2. Large areas of soil were darkly discoloured in this vicinity and oily films were present on leachate pools. Pools of foul-smelling leachate were also observed exuding from several points along the base of the excavation. These had a pungent odour reminiscent of abattoir waste. Evidence of gaseous decomposition (revealed by bubbling vents) was present at a number of locations in Landfill Nos. 1 and 4 where surface water had collected. Strong odours were also present*."
>
> (iii) Para. 7, relating to trial pits excavated in Landfill No. 4, "*….layers of mixed waste of metal, wires and plastics. The base of the trial pit filled slowly with a dark foul-smelling gelatinous sludge while oil-polluted water entered from the sides of the pit. A layer of denatured proteinaceous material rose to the surface", "Leachate entered the pit from the sides at a depth of approximately 3 metres. This was predominantly oil-contaminated water. Gas was observed bubbling through this indicating decomposition at levels beneath this", "Photograph 0023 shows mixed wastes consisting of metals, wires, pipes and large quantities of plastic waste and rubbish sacks tightly compacted. The base of this trial pit filled rapidly with watery leachate which had an extremely acrid smell. The leachate was flowing freely showing the porosity of the surrounding soil", and, "Photograph 0019 shows another trial pit with mixed wastes and again having been heavily compacted. The base of this trial pit filled slowly with a thick leachate which had a pungent smell of decaying meat. The leachate was coloured with a blue substance*".
>
> (iv) Para. 8, "*I also say that the leachates flowing from the landfills constitute a risk to the environment which is presently occurring. They visibly contained waste hydrocarbons which can contain carcinogenic and other harmful substances. The thick organic ooze of the leachate would produce an extremely high biological oxygen demand (BOD) on any receiving waters and would at least pollute them with high levels of ammonia and nitrogen. From the variety of chemical containers present, I also say that a risk arises from the materials of this type as they deteriorate and that one must adopt the precautionary principle where there is clear evidence of unknown substances being present*".

56. No basis has been made out not to accept Prof. Russell's evidence in these respects, and of course one must emphasise that he is a council witness. Thus I accept the foregoing evidence.

57. As regards, for example, the evidence of hospital and clinical waste on site, WYG and Brownfield did not find such waste in their trial pits or investigations. But that does not allow one to get away from the original evidence of finding of such waste in the first place.

Andrew Robinson

58. Mr. Andrew Robinson is an environmental consultant with Komex Environmental Ltd., engaged by the council. The following averments in his affidavit of 14th July, 2005, are relied on by Mr. Bland:

(i) Para. 7 "*(i) Four separate landfills exist on the site (Landfill No. 1 to Landfill No. 4) and were found to comprise a mixture of hospital, commercial, domestic, construction and demolition waste. (ii) Landfill No. 1 is located approximately 10 metres west of what was formerly the first-named Defendant's house and waste was found to be present in this location up to depths of 14 metres. The landfill contains an estimated 90,000 tonnes of waste comprising a mixture of medical, commercial, domestic, construction and demolition waste. (iii) Landfill No. 2 is located in the southernmost area of the site. Results of the investigation suggest that the waste has been deposited directly on the floodplain. The waste was found to be up to 7 metres thick. The landfill is estimated to contain up to 50,000 tonnes of general waste including farm machinery, used chemical containers, construction and demolition waste and organic waste. Waste was found to be relatively dry due to the presence of a low permeability capping layer. (iv) Landfill No. 3 is located directly to the south of the house and barn. The filled area was found to be mainly composed of overburden from the quarry, with a small amount of waste. There was no evidence to suggest commercial waste disposal activities took place in this landfilled area. (v) Landfill No. 4 is located to the south west of the house. The landfill contains an estimated 80,000 tonnes of waste comprising a mixture of hospital, commercial, domestic, construction and demolition waste*."

(ii) Para. 37, "*Groundwater: Analytical results indicated the presence of elevated concentrations of ammonia, iron, lead and arsenic, as well as detectable COD concentrations in shallow groundwater wells located downgradient of Landfills Nos. I, 2 and 4 (MW03-1, MW03-3 and MW9). Elevated manganese, barium, nickel, potassium, zinc and calcium concentrations were recorded in MW03-1 and MW03-3, particularly during the second sampling round. Elevated concentrations of iron, lead, nickel, manganese and arsenic, as well as TPH (Total Petroleum Hydrocarbons) were also noted in MW 10, adjacent to Landfill No. 2. Low concentrations of hydrocarbons including xylene, ethylbenzene, trimethylbenzene and isopropyltoluene were also recorded in MW03-1.*"

(iii) Para. 54, "*Groundwater in the sand and gravel deposits all along the Slaney are known to make an important contribution to the baseflow system of the Slaney (GSI, 1994). In a similar way, the groundwater in sand and gravel and bedrock aquifers is likely to greatly contribute to the baseflow of the Carrigower River. Groundwater is therefore considered to be a highly sensitive receptor*."

(iv) Para. 57, "*One of the main unknown factors relates to variation in flow conditions in the drainage ditches running from the site boundary, across the cSAC and into the Carrigower River. This is a potentially significant mechanism for transporting contaminants into the sensitive river, and has not been fully quantified to date*."

(v) Para. 58, "*The other large unknown relates to the potential risk posed by flooding of the Carrigower River, and the manner in which this may interact with the waste bodies*."

59. Again I accept this evidence, furnished on behalf of the council and unchallenged.

Sonia Dean

60. In Sonia Dean's affidavit of 20th July, 2005, the following averments are made:

(i) Para. 5, relating to Landfill No. 1, "*On closer examination of the waste which was visible, I found a number of latex gloves, blue disposal hospital clothing, consisting of shoe covers, masks, gowns, incontinence pads and used bandages. These are items of healthcare waste and, using a precautionary principle, it was necessary to consider same as contaminated hazardous waste.*"

(ii) Para. 8, relating to Landfill No. 1, "*The excavation revealed a large quantity of waste buried beneath the ground. The soil profile showed layers of waste alternating with layers of soil or cover. The waste was degraded and the soil was discoloured. The waste that was excavated contained domestic, commercial construction and demolition waste and healthcare waste.*"

61. I accept this evidence, furnished on behalf of the council and unchallenged.

David Hall

62. David Hall in his affidavit of 22nd December, 2006, makes the following averments, which I accept:

(i) Para. 7, "*I noticed that there are deposits of asphalt in a number of locations*".

(ii) Para. 10, "*Asphalt is not an Inert Waste as defined by the European Council Decision of 19 December 2002 establishing criteria for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to the Landfill Directive 1993/31/EC*."

(iii) Para. 11, "*I say that Asphalt will contain PAHs. I do not know the precise origin of this Asphalt but I say that it would be typically the type of Asphalt that would be used by local authorities in the construction and maintenance of public roads. I do not know the date of the manufacture of this Asphalt but older Asphalts manufactured from coal tar contained high concentrations of PAHs. More modern Asphalts manufactured from mastics generated within the old refining process contain lower concentrations of PAHs. PAHs are able to leach from Asphalt (counter to the requirements of the 1999 Landfill Directive's description of Inert Waste). I would not therefore describe [as] Asphalt as inert waste*".

(iv) Para. 14, "*PAHs have a stringent water quality standard due to the potential health effects of exposure to PAHs. Many of these group of compounds (including but not limited to benzo(a)pyrene are known or suspect carcinogens, while those that are not carcinogens can ca[u]se liver damage, (such as, but not limited to fluoranthene)*."

Donal Marron

63. Mr. Donal Marron is an environmental consultant with Marron Environmental and acted for the council originally as part of WYG until its going out of business.

64. Mr. Marron said that he recommended that soil from Zone A be WAC tested and that which failed should be brought to a licensed landfill and that which passed could be replaced. Under cross-examination he appeared initially unaware that this was not done and that bespoke remedial target values (RTVs) were adopted by the council. Certainly, what was done was not as protective of the

environment as his recommendations.

65. Mr. Marron accepted that the thrust of the remediation carried out was to reduce the risk rather than eliminate it. Given that the council accepts an environmental risk was there at the outset, the fact that its own expert is saying that the remediation was to reduce rather than eliminate the risk implies that the risk continues to exist at least at some level.

66. He accepted the application of the EPA code of practice on unregulated sites although he claimed that by proceeding under s. 56, certain parts of the code did not apply. He was aware of the stricture of the code that in relation to land proximate to existing or planned residential development, or to wetland or SACs, it is to be assumed that waste is to be removed except if an alternative solution provides better protection. He did not mention this principle anywhere in his risk assessment because he did not understand that it was relevant in this case.

67. To speak of the position more widely than in respect of Mr. Marron alone, the council's witnesses generally seemed somewhat at sixes and sevens in terms of the precise details of whether the code applied, whether it was complied with, if not why not, and whether and to what extent any of these matters were the subject of discussion and decision at the material time. The Mouchel witnesses in particular came forward at the hearing with new reasons why the code did not require removal of waste (i.e., that removal would damage the environment) that had never featured in the case and had never been set out on affidavit or put to the Brownfield experts. Such a *post hoc* rationalisation speaks volumes about the disorganised state of the council's position. Having had 16 years to get its story straight since the discovery of the waste, the council continued to drop new theories into the case right up to the end (also the idea that WAC analysis was actually complied with due to a footnote in a directive, and the idea that boreholes had to be well below the waste to avoid causing pollution) which were never put or signalled in advance either cogently or in some instances at all. Confusion appeared to reign about whether it had been decided not to apply the code and why not. Furthermore, the council witnesses repeatedly claimed that "*emergency powers*" under s. 56 exempted them from the code and EU law. But nobody seemed to stop and ask when, if ever, the code and EU law would be complied with. The council does not seem to have thought through the concept of whether it would be able to hand the site back to Brownfield without full removal of waste. O'Keeffe J. was told that Brownfield would be getting back an improved site; but in fact Brownfield is not getting anything back unless all waste is removed, not just the bonsai job; or unless it gets a licence.

68. When asked about the application of the code Mr. Marron shifted ground and stated that "*[t]he assessment methodology*" complied with the code of practice provisions on source-pathway-receptor linkages. He did not comply with the initial assumption but he complied with the rest of it. That formula shows how meaningless the bland assurances made by the council are. We complied with the code – except where we did not.

69. One thing that is absolutely clear is that the code was not complied with in full. The precise extent of non-compliance is discussed below.

70. A letter from a Mr. O'Brien of the EPA also wrongly asserts that the code was complied with. It is somewhat concerning not just that the EPA was involved in a TWG which recommended a scheme which did not comply with the EPA's own code and then incorrectly asserted that it did so comply.

71. At the same time, Mr. Marron believed that under s. 56 powers he was being asked to carry out a remediation plan. This obviously does not explain why the code of practice does not apply. He put it out of his mind because it was a special case. It "*would have been discussed*" at TWG meetings. As a result of that discussion he formed a belief that he should not have regard to the code of practice in this regard. Crucially, he accepted that there was no question that leaving the waste behind protected the environment, and that it followed that applying the code would have involved removing the waste.

72. Extraordinary comfort appears to have been taken from two court decisions where something less than full removal of waste allegedly took place. It is as if there is a sort of forensic race to the bottom where any case that fails to ensure full removal is seen as setting the bar at a new low and provides comfort to inadequate remediation on the next occasion. The authors of the departmental missive to the Judicial Studies Institute might have something to say about such an interpretation.

73. In a case entitled *South Dublin County Council v. Fennell & Ors*. (referred to as the *Ronan* case) [2011] IEHC 499 (High Court, Clarke J., 4th August, 2011), there was a zone to the south of the site in question with largely clean clay and a zone to the north with some contamination. Mr. Shine was representing Ronans, and put forward what Mr. Marron thought was a "*Morris Minor*" type remediation; to drill one well and pump out leachate to a sewer. He was for SDCC and was seeking full remediation of the northern zone. Clarke J. asked the experts to meet and see if they could reach a compromise on environmental objectives, and that was done. For example, Mr. Marron wanted a leachate trench all around but settled on wells; but he insisted on gas treatment. Cost estimates were between €30-50,000 (defendant) versus €3m (plaintiff); the cost of the solution achieved was roughly €0.5m involving removal of hotspots. Mr. Marron's assessment of the proceedings was that the vast bulk of the resolution was a consent order apart from a few items dealt with by Clarke J.

74. The other case was *Laois County Council v. Scully* [2006] IEHC 2 [2006] 2 I.R. 292 (18th January, 2006) where he was of the view that Peart J. allowed a cheaper solution achieving the same environmental objective, whereby trommelled waste that was inert *per* WAC testing was allowed back, albeit not in contact with groundwater. The actual judgment however rejects the trommelling solution (see para. 10), so it is not clear what Mr. Marron is referring to – possibly to some compromise worked out after the judgment was delivered.

75. As regards the stricture at p. 6 of the EPA Code of Practice, Mr. Marron's position was that everyone was aware of the previous court cases where waste was allowed in position and there was the view that in the case of s. 56 powers this issue did not apply. He thought this issue "*might be taken for granted*" and so did not mention it; his brief was to prevent contamination, not to provide for maintaining a landfill.

76. He denied that his prior advices to Mr. O'Reilly (before shifting role and advising the council) would have involved importing waste. Confronted with his report that vast quantities of waste would have been imported, he accepted there would have been construction and demolition waste to build up the lower areas.

77. He also formed the view that the landfill directive or EIA directive (Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment) did not apply because the council was working under emergency powers. As regards the waste framework and groundwater directives, he thought certain elements applied although it was not clear which; nor was it clear why certain elements applied and not others. What seemed to emerge was a sort of DIY approach to appropriate standards that should be guiding remediation whether the council was strictly bound by them or not.

78. He previously incorrectly claimed that there was an appropriate assessment under the habitats directive (Council Directive 92/43/EEC of 21 May 1992) when in fact there had only been a Natura impact statement. He put this down to his "*lack of knowledge*" on this issue.

79. He accepted it is axiomatic that if you put waste in contact with groundwater you will contaminate the groundwater. He accepted that his plan did not remove all contamination but he claimed it improved the situation.

80. He did not disagree with the described extreme vulnerability of the site in hydrogeological terms.

81. Mr. Marron claimed that the capping of Zone C was in compliance with the landfill directive. He agreed that there was no capping on Zones A and B in accordance with the directive, and no barrier to rainfall ingress. He accepted that maybe a cap should have been put on and he recommended one.

82. Page 1 of the EPA Code of Practice says that all hazardous waste shall be removed. Mr. Marron claimed it was removed from Zone A. As regards the sample from BH 12-10, from 2.5 to 4.5 m down in one borehole which found 2 parameters elevated above hazardous waste limits, he said hazardous wastes were not removed because he believed it was a very small trace result that you would expect to find. His attitude was that they were not going to go around picking out all little bits. Again, he claimed this was not a breach of the code of practice. By the time they got results back that trial pit had been filled in and things had moved on. He claimed that the issue was minor and trivial.

83. In Zone B, Ó Laoire Russell (OLR) had described oil drums and other hazardous waste. They did not find that in Zone B. It seems to me to follow that it is likely that such material remains in Zone B.

84. Clearly there is some evidence of hazardous waste remaining on the site; even assuming the amounts are not huge, it does not follow that there is no environmental risk. 3.8 tonnes of hazardous waste was removed from Zone A; the same percentage likely in Zone C. Mr. Marron appeared to be saying that it is a matter of no importance to have 3 tonnes of hazardous waste removed. That seems to me to be implausible.

85. He averred that there was a significant improvement in soil quality but referred to samples taken by Mr. Byrne of the topping material, where 5 of the 350 parameters show exceedances of inert threshold values. One must bear in mind that this is material that is supposed to be inert and has been through the trommelling process. It does not demonstrate anything about the soil quality at the site generally, as averred to by Mr. Marron.

86. His affidavit supported the theory that groundwater levels at BH 12-09 were not as high as measured due to "*perched water*". The perched water theory, repeatedly offered by the council, is speculative and unlikely to be correct. I prefer the evidence on behalf of Brownfield's experts on this issue. Mr. Nealon witnessed a flow of water which was more indicative of groundwater and I accept his evidence.

87. Time and again in the case, the approach by the council is simply one of disregard of inconvenient data as being outliers, as opposed to taking a conservative course based on the precautionary principle. Mr. Marron opined that the water found at this location may have been groundwater or it may have been perched water, and thus while he was not accepting it, it was well within the scope of the possible for the purposes of the precautionary principle. In any event, Mr. Marron accepted that perched water will make its way down to the groundwater in time. Thus this whole argument is really a distraction and a smokescreen.

88. In my view the whole WYG approach was fundamentally flawed for a number of reasons:

(i) It failed to comply with the EPA code – the extent of non-compliance will be the subject of further discussion below.

(ii) The depth of the boreholes well below the compliance point of the base of the waste was inappropriate. Mouchel's last-minute evidence that compliance points had to be well below the waste had all the appearances of a late confection; it did not previously feature in the council's affidavits or in cross-examination of Brownfield's witnesses. Indeed, some of the cross-examination was predicated on a suggestion that compliance points chosen were at the base of the waste. The Brownfield expert position on this is to some extent reinforced by the code of practice at p. 30.

(iii) The WYG Tier 2&3 approach categorised all fines as inert (p. 15). That was something of a sleight of hand which led to a minimisation of the extent to which the waste was not problematic. That characterisation formed the basis of the risk analysis and was picked up by Mouchel. Mr. Marron said that the vast majority of the fines were sand, silt and clays as they were formed from a 20 mm screen. Confronted with photographic evidence showing plastic bags and similar mushed material he suggested other trial pits did not show such material. He suggested that photos make trial pits look worse than they are, and that the plastic bags might not be domestic waste but could be wrapping. Such responses are unconvincing.

(iv) In Zone A, WYG carried out 8 soil tests, 7 of which failed WAC testing (p. 17 of the Tier 2&3 report). One out of 2 samples failed in Zone B (p. 18). In Zone C, 5 out of 9 failed the WAC testing. Thus 13 out of 19 samples were non-inert on WAC criteria. The council then adopted its own bespoke methodology, which eventually the sampling passed.

(v) WYG were unduly influenced by their clients and wrongly scaled back the level of risk rather than allowing the approach to be science-led. The site was initially categorised as high risk and the discounting of Mr. O'Reilly's house in the risk assessment was at the council's suggestion. The exclusion of the house is illogical and inappropriate in the absence of any legal basis for preventing the house from being repaired and re-occupied. The code of practice requires houses planned or existing to be taken into account and the inappropriate adjustment of the scoring dropped the site from high to medium risk. In any event there are other houses nearby rendering a high risk rating necessary.

(vi) The water table was dropped significantly from the draft Tier 2 report to the final Tier 2&3 report, thus reducing the risk. This changed approach was not based on any new data but rather on the basis of disregarding inconvenient information. Mr. Marron's response was somewhat confirmatory of this – his view was BH 12-09 was not reliable and was considered to be perched or trapped water. However, he accepted that the risk assessment did not state that BH 12-09 was being discounted or why. He said that it was discounted in 2012 because when drilled it did not hit water, and that when on later measurements the water was at a static level it was deemed to be perched. Inconsistently with this however, BH 12-09 is included in the report at p. 40 which lists its results as part of the groundwater contour points. He attempted to describe levels from BH 12-02 as perched water but they are described in the table itself as "*groundwater*

levels". What is also somewhat questionable about the current position being put up is that the disregard of the data was not communicated to anybody and the data continued to be before Mouchel subsequent to WYG. The table at p. 43 states somewhat speculatively that water may be perched on this location. Again, we return to the consistent theme in this case of the council and its consultants discounting as outliers any information that contradict the thesis that there is no problem here, nothing to see. He said that "*we weren't to know that this was going to be the most critical point*"; but it is obvious that the extent of impact of the waste with the groundwater was of considerable importance. The BH 12-09 water table levels are furthermore consistent with the Eckhart diagram of where the contours of the groundwater are, as accepted by Mr. Marron.

(vii) The testing carried out did not take appropriate locations as monitoring points, particularly there was inadequate sampling at the part of the site where the waste intersected or potentially intersected with the water table. The choice of sampling points largely avoided the most sensitive areas.

(viii) The Tier 2&3 report states at p. 60 that the closest receptor is the river. Under cross-examination he accepted that the groundwater was a (closer) receptor.

89. A crucial piece of evidence offered by Mr. Marron under cross-examination on 20th June, 2017, was that if this was a case of requiring private parties to clean up the dump, the approach of removing all waste would have applied. The approach would "*pretty much*" have been to comply fully with all relevant codes of practice and EU law (QQ. 57-65). He mentioned proximity to an SAC or housing as being a factor favouring removal of all waste (even inert waste) in that context. He accepted that what he was engaged in was emergency works to improve matters in the short term, not long term works.

90. Importantly, he also accepted that the site was an inappropriate one for a landfill.

91. It was not part of his remit to investigate all areas of the full site above and beyond Zones A to C. For example, there is no data for the North-Western corner of the site.

92. Overall, Mr. Marron struck me as a witness who was doing his best from his own perspective but his somewhat awkward position stemmed in part from the fact that, like many a consultant before or since, he had found himself in a situation where the client (in particular through the medium of Mr. Boland) had an excessive degree of influence on the shape of the proposals.

Michael Boland

93. Mr. Boland under cross-examination took the view that the site was outside rather than within the SAC. That approach seems incorrect in the sense that there is an overlap with the SAC at the South-Eastern corner on the maps prepared. More fundamentally, the site is on any view adjacent to the cSAC and needs to be treated with the appropriate sensitivity.

94. Mr. Boland did not accept that there was any decision not to apply the code of practice in full. That is to some extent a surprising position because the one thing that is clear is that the approach taken did not comply with the code (a matter I discuss further below), an outcome could hardly have come about by accident. Mr. Boland's contention was that the council did apply the code of practice. Confronted with the proposition that the outcome did not comply with the code, he said that if that was so, there would have been no need to carry out a risk assessment. That indicates a fundamental misunderstanding by the council of the code which envisages a risk assessment in any event followed by remediation, presumptively, and normally removal of all waste. His unsatisfactory reply was "*it says in an SAC*". That is an inadequate reply given the content of the code and its reference to sites proximate to residential development, as well as sites which are wetlands and cSACs. When confronted with the presumption in the code, he said that was the presumption we made. By contrast Mr. Marron indicated that this was not applied and that view is clearly correct. Mr. Boland then said that under s. 56 there was an urgency, they discussed it with the EPA and they suggested that the council had to do a risk assessment.

95. Mr. Boland agreed that retention of the waste here does not enhance the environment; that waste is within metres of a house and that the site (rather than the waste) is within 10-15m from houses on the road. His view was that Zone B is adjacent to the flood plain but he accepted it was Dr. Robinson's interpretation (set out on affidavit) that it is in the flood plain. Under further pressure he said "*it would… appear to be*" on the flood plain. He accepted under some pressure that part of the site was within the cSAC but denied that the landfill was within the SAC.

96. Mr. Boland accepted that hazardous waste was not removed when detected as required by the code but claimed that BH 12-10 was the only such waste. No investigations were carried out following detection of this waste. He parried the question by saying that he did not recall a level for diesel range organics in the WAC analysis. However, this turned out to be a diversionary tactic because he then, under further questioning, accepted that any amount of diesel range organics was hazardous waste. After some pressure, "*in the strict letter of it*" he accepted that the code was not complied with.

97. In reply to a question as to whether the NPWS was going to be consulted he said that there was no "*direct*" consultation during the preparation of the risk assessment, but the Natura impact statement was forwarded in 2012. However, seeing as the code states that the purpose of consultation is to ensure that the lands are "*properly assessed*" (p. 6), the intention is clearly that the consultation would have to be during the risk assessment process. The phrase "*direct*" consultation was characteristically a somewhat evasive term, as it emerged that there was no indirect consultation either during the risk assessment process.

98. Asked whether it was agreed (as Mr. Marron accepted) that the EU legislation did not need to be applied, he said that that was the approach they were working to, although he denied they ever sat down to agree that.

99. He said that his understanding was that the code of practice "*superseded*" the ministerial code of practice; when challenged he modified this and said it said the same thing and did apply. When asked did he agree with Mr. Marron that it was decided not to apply it, he said he did not apply it but denied it was agreed not to apply it. When pressed as to such an agreement he said "*it would appear that way*".

100. When asked if the code was being followed he said "*we thought we were*" because we did a risk assessment and a remediation strategy based on that. The view that such an approach follows the code is to dissipate its detailed substantive content and to frame the code's approach at an almost meaninglessly wide level of generality.

101. Ultimately, he said that he agreed that they did not apply some of the elements of the code of practice. "*It's not blanket … it's not 100% or nothing*". He then changed his position to say that "*we believe that we applied elements, or most elements… of the*

code of practice". Such vagueness is surprising given that the key issue here is whether the central requirement of the code was disregarded – the presumption for removal of all of the waste. I discuss this further below. His position was that they complied with the first sentence of s. 7.3 at p. 52 that "*[t]he remediation strategy report needs to identify the pollutant linkages and examine ways of breaking the linkages*". That is an inadequate basis for any claim that the code was complied with.

102. In his affidavit he stated that the requirements of the code were applied by the TWG. When it was pointed out that this was not factually correct, he said that he read that at the time as meaning in carrying out the risk assessment. That is not an answer, because the code was not applied in carrying out the risk assessment as the presumption of removal is one to inform the risk assessment. "*Maybe there was a bit of looseness*" was the best he could do. But this is not looseness, it is a central point. His defence was that Mr. O'Brien of the EPA said the council had complied – but so what? The fact that one is repeating a false statement made by someone else is not a basis for uttering a statement one knows to be inaccurate.

103. His view on WAC criteria was that they applied to landfills and "*this is not a landfill*". When challenged he said that the landfill is in Zone C. He thought Zone A was not a landfill because it was all inert. One can appreciate the almost absurd circularity of this argument. Because we say that Zone A is inert, the fact that it fails WAC testing which would demonstrate that it is not inert is irrelevant because we have decided that Zone A is not a landfill so WAC testing is not relevant.

104. Mr. Boland provided the information that went into the Department's response to the Commission. He hesitated to accept that the information came from him but ultimately accepted this. He said that it was true that the fines from Zone A were stored on top of Zone C and sampled for WAC analysis to indicate that if they are not inert they were removed to a licensed landfill. When confronted with the fact that Mouchel indicated that the matter had failed WAC testing but the fines were deemed to be inert anyway he claimed this was true and said "*we believed them to be inert*". Having seen and heard his evidence, he presented as a person who could not have been less bothered by the fact that he had told the Commission through the Department something that was not true (namely that waste failing WAC was disposed of elsewhere). Furthermore, he knew at all material times that what was conveyed to the Commission through the Department was incorrect. That situation did not take a feather out of Mr. Boland. His position was "*it would be untrue but we believed it was inert*".

105. The State's response to the European Commission dated 26th June, 2015, stated that "*[t]he fines are stored in 1500 tonne stockpiles … where they are sampled for WAC analysis to determine if they are inert. If the "fines" are … not inert, they are removed to a licensed landfill for disposal*". In fact, as we have seen, waste which failed the WAC test was allowed to remain. The Department is blameless in this regard as it passed on misinformation received from the council. Again, as with the error in the response to which I drew attention in the No. 2 judgment, it would be necessary for the council to draw this matter to the attention of the Department with a view to having the Commission given corrected information.

106. He accepted that the Minerex analysis found non-inert waste in Zones A, B and C on the basis of multiple failures of the WAC testing. He took comfort from Mouchel's bespoke testing. But he confirmed failure of WAC testing for sulphate across the board. He conceded that "*[t]here is no doubt that there is an issue with sulphate in soils on this site*".

107. Confronted with findings that OLR found contaminated water below Zone C, he rejected that until such time as it was clarified that their studies found that there was contamination of groundwater *emanating from* Zone C, which he then accepted. Again, the full story seems to emerge on a piecemeal basis.

108. The council's strategy is said to be to monitor until there is no risk. But Mr. Boland claimed that there was no risk and that the site is safe now. It was the intention to hand the site back as soon as the council finished the court case. There was a commitment given to the EPA to monitor, and to be sure of their position they would continue to monitor "*over the years … to ensure*" the position. He does not seem to have at all absorbed the difficulty that the site cannot be handed back to Brownfield without breaching licensing requirements.

109. In relation to WAC analysis, Mr. Boland relied on an exception to the exceedances set out in Council Decision of 19th December, 2002 (2003/33/EC) at s. 2.1.2.1 in the Annex. He confirmed on cross-examination that the tests required to give an alternative result as set out in the first footnote were not done and in relation to the third footnote the tests confirmed exceedances. Why then he sought to rely on this exception was hard to fathom. Why this supposedly all-important (but in fact irrelevant, because the tests were not actually carried out) footnote never featured in the council's case to date is also striking and speaks to the council's side still scrambling to get their story straight 16 years into this saga.

110. Mr. Boland appears to have been something of a motive force within the council for the flawed strategy adopted on this issue, although in fairness to him his role may perhaps be viewed in the context of implementation of an executive decision, made prior to the risk assessment and decided at a much higher level (involving the Deputy Chief Executive Mr. Doyle) to leave as much waste as possible in the ground. Perhaps predictably given his exposed position on this, he presented as a witness that was difficult to pin down, giving deflecting answers on a number of issues. His first answer was not his last answer on a series of crucial matters. Testimony under cross-examination is not simply a contest with opposing counsel, it is primarily a mechanism for helping the court to come to a full understanding of the facts; and having seen and heard Mr. Boland's stonewalling and complacency on a number of issues one is left with a vivid impression of the council's approach to this whole affair in microcosm.

Tony Brown

111. Mr. Brown is an engineer and technical director with Mouchel. He said initially that he was not particularly familiar with the EPA landfill design manual "*in detail*". Asked about the contents of the manual he initially speculated what it "*most likely*" contained; but then admitted he was guessing. Asked about whether he knew what the manual requires about surface water drainage he said not. He was not particularly aware of the requirements for surface water drainage away from the landfill. Overall he gave the impression of a somewhat uncomfortable figure in the witness box. It was therefore not hugely astonishing that the council did not want him recalled to give him the opportunity to deal with further material that emerged after he left the witness box.

112. An outline remediation plan had already been prepared and they were engaged subsequently; he accepted that his brief was to prepare a detailed design in accordance with that pre-existing plan. There were constant references to the WYG plan being there and his remit being as to implementation. In effect Mouchel were only following orders.

113. He was not aware of Mr. Marron's recommendations such as gas vents in Zone C. He was given a limited suite of documents at the outset of his work including the outline remediation plan and the Tier 2&3 report.

114. There is a pipe in the North-Western corner discharging surface water into the groundwater. He accepted that that is a direct

discharge into the groundwater. He accepted that if there is any contamination of the surface water run-off from Zones A or C or the North-Western corner, that pollution is directly discharged into the groundwater. He did not address this issue in his reports or affidavit and accepted it was beyond his competence.

115. He claimed familiarity with the landfill directive. It was put that the directive and the EPA design manual had specifications for capping and what was done did not comply. His understanding was that it was a cap to break the linkage. The landfill design manual requires that underneath the gas collection layer there should be sand or silt of a permeable nature to allow gas through. That was not done here.

116. His reading of the remediation plan was that the fines were to be WAC tested and that it was then to be determined whether the fines were appropriate to be kept on site. Thus they were in a position to develop their own bespoke testing (the RTVs). He said that "*all the WAC tests … passed the RTVs*". That is obviously somewhat contradictory. The waste failed the WAC test and was only regarded as inert when alternative, more permissive tests were adopted, outside the WAC methodology prescribed in the EU Council Decision.

117. Mr. Brown sought to parry the question of whether he complied with Mr. Marron's recommendation to remove waste from Zone A that failed WAC testing. He said that that recommendation was not in the outline remediation plan they were asked to implement. He then said he did comply with it, though in effect depending on how one defined inert. But obviously he did not comply with it.

118. He then said he complied with the footnote to s. 2.1.2.1 of the Annex to the Council decision which allows an alternative test relating to total dissolved solids (footnote 3) (or a leaching test or percolation test (footnote 1)). Of 46 stockpiles in Zone A, 6 of these failed also. Only one percolation test was carried out on one sample. When asked how the results constituted a pass, he relied on an entirely new concept; a 95% upper confidence limit which he claimed is common practice and said it is used by the Environment Agency in the UK. He accepted that that is not in the Council decision. He was unable to identify any Irish literature supporting it. He did not think it was in the EPA code of practice regarding remediation of illegal sites. The 95% confidence limit again had the flavour of a late confection. This crucial adjustment of the figures never featured in the council's case up to this point. Brownfield's witnesses were not cross-examined on that basis.

119. Mr. Brown relied on the first footnote to s. 2.1.2.1 on the basis that a percolation test had been carried out on a sample taken by Mouchel. He accepted that no such test was carried out on the samples taken by the council, Minerex or Mr. Byrne but because his test passed, he inferred the other samples would have also. So the claim is that the samples passed the WAC test because they failed the WAC test and were not subject to the alternative test but he thinks they would have passed it. That is speculation, and it is not an application of the established methodology.

120. He accepted that a series of Marron recommendations including, crucially, no contact between the groundwater and waste in Zone C, were not put in place because they were not in the remediation plan. Again the theme that Mouchel were only following orders looms large in the case.

121. Mouchel's contract required them to confirm that they complied with all relevant legislation. When asked whether his report confirmed this he became somewhat evasive and said it depends what legislation we are talking about. His position on further questioning was that he did not believe that it did but he could not quite recall. He claimed to be familiar with the code of practice and the presumption that waste should be removed unless retention provided better protection. He suggested the interpretation that the site did not come within the presumption because the site might not be one of the four categories where this applies.

122. Surprisingly, when asked about why the waste was not removed, he also speculated that the health of the population might be affected if the council started moving large quantities of waste about. That novel interpretation was never floated before by the council at any stage of the 16-year history of the saga until launched from the witness box by Mr. Brown on the afternoon of 22nd June, 2017. Presumably if the waste is as inert and harmless as the council claims it is, moving it about is not going to be a problem. If Mr. Brown thinks it might be dangerous to the health of the population not to leave the waste *in situ* that says little for the council's position.

123. Mr. Brown averred that the code of practice was followed in the review of the remediation strategies. He said that when they became involved he though the code was complied with. That is hardly an answer. He seemed reluctant to be pinned down on whether the code was complied with overall (apart from consultation with NPWS which he accepted may have been a breach) but eventually expressed the view that the code was otherwise complied with. I discuss the correctness or otherwise of this view below.

124. Mr. Brown attempted to argue that a comparison between Mr. Shine's L4TP3 and BH14-1 to 5 indicated that Mr. Shine's results were unrepresentative. This analysis fails to take into account the crucial issue of the depth and sampling points of BH 14-1 to 5. Again, one can have as much data as one likes but if the sampling points are inappropriate the "*supportive*" data does not count for much. Mr. Connolly made much of dozens of parameters sampled, but again quantity of data is no substitute for quality.

125. Mouchel recorded 0.1 tonnes of asbestos in Zone A, but this was not a problem to Mr. Brown because reliance was placed on a UK industry document CL:AIRE code. This document has no legal or official status. I do not accept that the levels of asbestos can be dismissed as trace quantities as submitted.

126. After Mr. Brown left the witness box certain further issues arose and a further affidavit was put in by the council exhibiting further Mouchel documentation attached to their verification report (affidavit of David Sweetman of 29th June, 2017). Given that certain criticisms of Mr. Brown were launched after he finished giving evidence I indicated I was minded to bring him back, unless I was being asked not to. Mr. Connolly then asked me not to do so, and indicated that he was happy for me to assess and resolve the criticisms made without further evidence, including to accept them if I thought appropriate.

127. The whole Mouchel approach appears to me to have been flawed for a number of reasons, notably:

> (i) Confirmation bias: Mouchel were brought in to confirm and implement an existing approach that was devised before their involvement. This emerged repeatedly in his evidence.
>
> (ii) A minimising approach to Zone C that took the view that the size of the affected area was small. But in absolute terms the area is large by comparison e.g. to the waste in the *Fenton* case (*Wicklow County Council v. Fenton (No. 2)* [2002] IEHC 102 [2002] 4 I.R. 44).
>
> (iii) The fact that the amount of material removed during the remediation was minor – both in absolute and relative terms.

(iv) The use of bespoke assessment, rather than WAC testing in accordance with the Council Decision.

(v) Only 46 samples were chosen. The UK Environment Agency document, *Waste Sampling and Testing for Disposal to Landfill*, exhibited by the council, states that in a heterogeneous waste body (which this clearly is), 22 samples should be taken for the first 10,000 tonnes and 10 *per* 10,000 tonnes thereafter. This waste body is clearly heterogeneous rather than homogeneous given long years of dumping from multiple sources (indeed the council itself says in submissions (p. 3, para. 1.6) that "*there was very little uniformity to the waste in Zones A and C*", and so in a body of 86,000 tonnes in Zone A there should have been 98 samples (22 + 7.6 (units of additional 10,000 tonnes) x 10). Thus the sampling taken by the council was well short of appropriate practice.

(vi) At the first step, half of the 46 samples (23 stockpiles) failed WAC testing for sulphate. Each stockpile had 1,888 tonnes of material, suggesting grounds for serious concern in relation to a gigantic amount of waste. Stockpile 1 was broken into 4 sub-parts (1a to d), lab codes 51046-2 to -5).

(vii) The verification report gives sample numbers for the samples taken but contrary to the suggestion that they were all from stockpile 1, one of the reference numbers (51046-1) is associated in table 7 with stockpile 3 – this turned out to be an incorrect number. A second one (51087-1) is the number given to the stockpile 1 percolation test – this was also wrong and the correct number is that for stockpile 1d. The disarray in the scientific material presented by Mouchel does not command confidence in the approach being taken.

(viii) Then a TDS (Total Dissolved Solids) test was applied and 6 out of the failing 20 samples from Zone A failed sulphate WAC testing.

(ix) There was then a fall-back percolation test, although only 1 sample was tested. (The data spreadsheet referred to a second percolation test but there was no associated data – this was unexplained and again does not inspire confidence in Mouchel's methodology). Apparently a composite sample was taken from the 6 failing samples from stockpile 1. Mr. Connolly claimed it was good practice to combine the failing sub-samples. Possibly the composite might give a more representative result, albeit perhaps assuming that all samples come from the same stockpile.

(x) More significantly, no percolation test was carried out on the other 5 failing stockpiles. Reliance on the footnotes broke down to the extent that the percolation tests were not carried out in accordance with the Council Decision on the other failing stockpiles – the position was adopted that it was inferred that the other stockpiles would have passed if the percolation test was applied, which it was not.

(xi) Bespoke values were created for mineral oil samples from Zone A. While the Council Decision allowed TDS as an alternative for the sulphate test, it does not allow alternative methods for testing other contaminants. Stockpiles 4, 42 and 46 had an exceedance of mineral oil. An RTV on mineral oil was conveniently adopted, contrary to the Council Decision, some 800 times more permissive than the WAC limits (the verification report states 400,000 mg/kg rather than 500 mg/kg).

(xii) Stockpile 51514-2 had a total organic carbon failure on WAC. This was not felt to raise a concern so it was not retested.

(xiii) In any event, the conclusions drawn by Mouchel in terms of their own sampling are not a reliable basis for a conclusion that there is no risk as one has to look at all the evidence, including the failing results on a range of other samples obtained by Mr. Byrne, Mr. Shine and indeed the council itself.

(xiv) In January, 2017 Mr. Byrne took 8 samples across the 3 Zones – 3 in Zone A; 2 out of 3 failed sulphate, all 3 passed TDS; 1 was in B and 4 were in C. 1 failed on TDS, in Zone B. Mr. Byrne also found asbestos in Zone A.

(xv) Mr. Shine took 6 samples, 3 were in Zone A, 1 was in Zone B, 2 were in Zone C. All 3 Zone A samples failed sulphate testing. 1 in Zone A would have failed anyway but 2 would have passed on TDS, as would the B sample.

(xvi) Wicklow itself carried out tests in January 2015. They took 4 samples from Zone A; all four failed the sulphate testing and TDS. No percolation test was taken. Thus no conclusion favourable to the council can be taken from the Mouchel findings even if one were to accept them, when other tests are showing up non-inert waste even allowing for the fall-back option of regarding waste that fails basic sulphate WAC testing as being non-inert when TDS is taken into account.

Thomas Eckhart

128. Mr. Eckhart is a hydrogeologist with Mouchel. His position was that the landfill directive did not apply. He said he was unaware of any decision to disapply the code of practice. At para. 9 of his affidavit of 11th January, 2017, he was quite dismissive of the water framework directive (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy), the groundwater regulations (European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) and EPA guidance on discharges to groundwater, on the grounds that "*a more relevant guidance document*" was the Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (April, 2007). However, he was not complying with that code.

129. His position was that different experts had different interpretations of the code and that there were contradictions in the document itself. Again, this was a somewhat new position, but also (characteristically) a legalistic position and not one driven by the overarching need for precaution in terms of environmental protection.

130. He haplessly claimed that the council/TWG default position was if there was waste in a sensitive site it should be removed, but the questions of cost-effectiveness and whether it was causing harm arose. But that was not the council's default position. We know that the default position *adopted prior to the risk assessment* was that waste would remain in the ground as far as possible. Mr. Eckhart knew nothing about the council position that "*as much [waste] as possible will be allowed to remain on site*" (email from Mr. Andrew Lawless, Senior Executive Engineer, to Mr. Bryan Doyle, assistant chief executive and Michael Geaney Senior Engineer, of 22nd February, 2012).

131. Furthermore, and crucially, cost-effectiveness and level of harm are not the tests in the code; the issue is whether retention

provides better protection for the environment. If the council and its many advisers had simply applied the code of practice appropriately, many of the problems now arising would not have come into being. But the evidence showed that the council's side just had not got its story straight on why the waste was being left in the ground. Mr. Eckhart's emphasis on cost-effectiveness was somewhat more pronounced than that of other council witnesses, and maybe more revealing. Mr. Bland convincingly submits that the emphasis on cost-effectiveness, and on waiting and seeing until there is actual measurable substantial pollution, is an approach that invites the court to wait until things are too late.

132. Mr. Eckhart then elaborated on the environmental damage caused by moving the waste including lorries, noise and carbon footprint. Apart from the last-minute nature of this theory, and the fact it was not put to Brownfield's witnesses, it is contradicted by the EPA assessment which does not support an adverse impact of removal.

133. He accepted that the code does not say "*specifically*" that cost-effectiveness was an issue.

134. He denied that the compliance point was the base of the waste. The compliance point was where the regulator would expect water quality to comply with screening criteria. Where in any project to set a compliance point is down to discussions with the regulator, because there is a practicality issue as the borehole itself could create pollution. This theory was again a new parachutist into the case and certainly was not put to Brownfield's witnesses.

135. There is an attempt to dismiss the relevance of the WAC values as set out in Mr. Eckhart's affidavit (para. 38) where it is suggested that WAC analysis is only relevant in the context of creating a landfill and not for a remediation project. Again, the approach being taken is that appropriate standards were disregarded because the council was remediating. That does not command confidence in the assertion of no environmental risk. His position is that WAC values are "*theoretical values*" of interest to landfill operators but do not take into account "*solubility of salts or site conditions*" as it is put in council submissions (para. 4.1). Such a position is all too convenient. WAC testing is at least an objective system, backed up by a Council Decision. The approach of creating bespoke values indicates a disregard of the principles of high level of protection and of precaution as set out in EU law. Furthermore it is a journey into subjectivity once the moorings of externally defined standards have been cast off.

136. The need for objective standards is reinforced by the Department's own letter to the Commission. I am not sure that the Commission would have been that reassured if, instead of being told that fines that failed WAC testing would be sent off site, they had been told that different test limits of the council's own creation had been set and passed.

137. Annex II of the landfill directive sets out "*Waste acceptance criteria and procedures*" and art. 16 allows the Commission to adopt "*proposals for standardisation of control, sampling and analysis methods in relation to the landfill of waste*".

138. Pursuant to art. 18(4) of directive 75/442/EEC the Council adopted the Council Decision of 19 December 2002 (2003/33/EC) establishing criteria and procedures for the acceptance of waste at landfills pursuant to art. 16 of and Annex II to Directive 1999/31/EC. While it is true that the criteria are for the purposes of landfills, this is a landfill in the sense that it is an illegal landfill. To regard it as not being a landfill would mean, non-purposively, that lower standards should be applied to an illegal site than to a legal site. Such an interpretation would undermine the principle of effective judicial control of EU law.

(C) – Witnesses put forward by Brownfield

Dr. Ted Nealon

139. Dr. Nealon is a geologist with a PhD from NUIG. He is a former official of the Department of the Environment and the EPA and is now a consultant. He was a director of Dean Waste (a defendant in the 2005 proceedings and, until struck out, a co-plaintiff in the 2008 proceedings) as well as a consultant for many years to that company and a director of an associated company, City Bin. His acting for a number of parties does little more than mirror the fact that on the council's side, Mr. Marron acted for Mr. O'Reilly prior to his work in WYG. Obviously the world of Irish waste management is a small one. Overall, he struck me as a reliable and highly qualified expert with a deep knowledge of the case and the issues involved. I accept his evidence and prefer it to that of the council's experts where he differs from them.

140. He was of the view that there were three key aspects to environmental risk in landfills: location, technical protection such as liners and the type of waste. He was of the view that authorisation for a landfill would never be granted at this location, beside a cSAC and with vulnerable hydrogeology. He drew attention to the absence of appropriate liners. His view was that risk arose from these underlying factors and that the risk was empirically validated, at least to some extent, by the findings of Trial Pit L4TP3 and borehole BH12-09.

141. In his affidavit of 13th July, 2016, Dr. Nealon was supportive of the Brownfield position that the methodology of the council's remediation plan was flawed and was "*not fit for purpose and was incapable of achieving the aims*" set out (para. 5).

142. He drew attention to the condition of the waste licence granted to Brownfield requiring all non-inert wastes to be removed off site (para. 7), and that Wicklow itself required this in its notices under s. 55 in 2004 (para. 8).

143. He averred that the boreholes drilled by Mouchel were inappropriately selected and were drilled at levels which did not reflect the extent of the pollution occurring (para. 10).

144. He averred that the Mouchel data as set out in its cross-sections did not show the presence of any layers of clay at all and that this "*is a serious inaccuracy*" and gives rise to a "*serious misinterpretation of the chemical analyses presented by Mouchel*" (para. 13). He averred to a "*large number of errors*" in the reports presented by Mouchel and WYG (para. 18). He concluded that the finding that the groundwater and waste in Zone C are in minimal and temporary contact with the groundwater is an error. His view was that the partial remediation was "*ineffective in protecting the environment from pollution*" and "*does not comply with the relevant [EPA codes of practice] or Government circulars*" (para. 21).

145. He was also of the view that the inappropriateness of the location and the inherent risk factors were validated by the views of the council prior to its change of approach and by the views of the EPA (here I note that the licence issued required removal of all non-inert waste, and Mr. Carty of the EPA wrote a letter indicating that a licence would not be granted for a landfill on this location.) While he appeared to accept limited empirical findings of hazardous waste or of the present pollution of the river, he considered that focus on hazardous waste was "*sleight of hand*" because the issue was not simply hazardous versus non-hazardous but inert versus non-inert, and there was greater evidence of non-inert waste and of pollution of the groundwater. In terms of waste contact with the groundwater he observed the water entering L4TP3 by filling from below following digging of the hole and indicated that this was

groundwater as opposed to perched water which gushed in from the side at another location.

146. In my view the absence of hazardous waste from the original Brownfield EIS is not of huge significance in that testing since has identified such waste.

147. In his second affidavit of 1st December, 2016, Dr. Nealon expressed the view that non- inert fines excavated from Zone A were reported on by WYG in their Tier 2&3 report (para. 3). He drew attention to the fact that Chemtech Environmental analysed council samples showing an exceedance of inert waste limits by over 7 times, in relation to sulphate and total dissolved solids (para. 4). He also draws attention to the report from Alcontrol Laboratories finding that waste fines include both glass and fibres, namely "*obviously not clean inert soils*" (para. 6). His view was that the council had not complied with the landfill directive.

148. At para. 10 he drew attention to the view expressed by the Fisheries Board on 26th April, 2004, to the EPA in relation to Brownfield's licence application that "*The Carrigower River in the vicinity of this site and for some distance downstream is one of the more important salmon spawning and nursery tributaries in the Slaney system … this river system is a source of drinking water for a number of significant population centres further downstream*".

149. At para. 15 he indicates that the WYG Tier 2 assessment of February 2012 indicated very significant exceedances of the non-hazardous limits for a range of materials in respect of Zone C. That zone therefore contains hazardous waste. This is consistent with findings of the Minerex groundwater analysis, with significantly elevated levels of diesel range organics (para. 17).

150. He was also highly critical of the fact that the report of WYG was changed at the instance of Mr. Boland of the council rather than by the consultants (para. 21). It is clear that Mr. Boland intervened to downgrade the risk classification of the site and misleadingly swept this under the heading of "*some suggested minor text changes or typos*" in an email of 11th May 2012 at 15:15 (para. 22). He was critical of the methodology of the WYG report, indicating for example that groundwater contamination "*was not considered for Zone C*" (para. 28). His view was that there had been no justification for the selection of the remediation option chosen, which did not accord with available evidence (para. 30).

Prof. Paul Johnston

151. Prof. Paul Johnston is attached to the Department of Civil, Structural and Environmental Engineering, TCD. Overall he also struck me as a reliable and highly qualified expert. His understanding of the issues involved was considerable. I accept his evidence and prefer it to that of the council's experts where he differs from them.

152. He said on affidavit that the analysis of groundwater reported by Mr. Shine constituted a "*significant adverse environmental effect*" (para. 9). A number of substances listed by the EPA as hazardous and whose entrance into groundwater must be prevented were identified in the groundwater sampled by Minerex (para. 20).

153. The only way to prevent direct discharge of substances from waste in contact with groundwater is complete removal of those wastes or the lining of the site. The council's failure to adopt either of those options "*has been to make a bad situation worse*" (para. 30).

154. The Mouchel reports were criticised on the grounds that Mouchel set its own limit values for pollutants considerably in excess of WAC limits (paras. 7-8). Significant detailed criticisms were launched of Mr. Eckhart's methodology.

155. A key objection to Mouchel's approach is the location of the boreholes that they chose to dig, which were outside the area where waste was below the groundwater (para. 41). To my mind this must be a decisive objection. One can generate as much favourable data as one likes, but if the borehole sampling points from which the data are generated are not in the pathway (as Prof. Johnston emphasised under cross-examination), a conclusion of no risk simply does not remotely begin to follow, no matter how many mountains of data and results are accumulated. As Prof. Johnston said at para. 42, "*no groundwater has been sampled or analysed by Mouchel from within the relevant area of Zone C … the only analysis of groundwater which is in contact with the waste … is that carried out by Minerex … which demonstrated that the groundwater was significantly polluted*".

156. The Mouchel conceptual site model was flawed for a number of reasons, including that it only considered the river as a potential receptor rather than the groundwater itself (para. 60). I would not necessarily accept that particular criticism as it appears taking all the material into account that both receptors were considered.

157. His affidavit concluded that he had "*grave concerns that the entire approach to remediation here is flawed*" for a number of reasons.

> (i) "*Wicklow county council set its own standards which are different and less stringent to the standards provided for in legislation and established by best practice*."
>
> (ii) "*There is hazardous waste in Zone C*." While he was challenged on this conclusion he stood over it and I accept his conclusion having regard to all the evidence.
>
> (iii) "*Non-inert waste has been disposed of by the council in Zones A and B and into the groundwater*."
>
> (iv) "*No liner has been provided to protect the environment*." Due to the absence of such liner, environmental pollution is occurring.
>
> (v) These factors together with the discharge of surface water into the waste in Zone A create environmental pollution. There is movement of groundwater into the cSAC and the river which raises "*the gravest of concerns*".

158. In a supplemental affidavit he expressed the view that the "*nature of the deposited waste and the hydrogeological situation of the site are critical to the choice and execution of any remedial approach*" (para. 3) and that in view of the highly sensitive environment the approach of the council is "*difficult to understand or justify*". At para. 6 he referred to a number of factors justifying the Brownfield approach (removal of all non-inert waste) including the river "*being an important salmon spawning and nursery river, and the presence of a number of dwellings in and around the vicinity of the site*" (para. 3)

159. Significant criticisms were made of the conceptual model adopted by the council consultants. For example he said that "*there is no such thing as a* 'permanent' *water table in this case*" (para. 14) and that the water table varies both in time and space. The

lowest recorded water level is around 137.5 OD in BH 04-05 and the highest is at BH 12-09 above the waste in Zone C at 139.78m OD. Leachate flows were generally lateral in the site.

160. It was "*clear*" from the evidence so far that "*the waste in Zone C is in regular contact with the prevailing groundwater regime in the sand and gravel, that the receptors (groundwater and the SAC) of potential pollution are either directly in contact with the source or very close to it, and that the travel times between sources and receptor are relatively very short*" (para. 18). The bedrock aquifer is mapped by the GSI as locally important and is "*in complete hydraulic continuity with the overlying sand and gravel*" (para. 19). He also referred to the Inland Fisheries Board position that the salmonid river with its adjacent flood plain can be regarded as a particularly sensitive receptor.

161. The fines deposited on the surface are "*highly leachable*" (para 20). Sites of this nature tend to contain significant amounts of hazardous material. WYG and Komex initially designated the site as high risk (para. 21), a designation removed only when the receptor of the nearby house and well was removed. The significance of the SAC was not taken into account (para. 21). Contact of hazardous waste and groundwater is totally impermissible.

162. The UK Environmental Agency guidance indicates that the compliance point should be set as the base of the waste (para. 24). The council's methodology did not comply with this.

163. Reliance was placed on the EPA code of practice which indicated that lands proximate to an SAC should involve removal of all waste unless an alternative provides "*greater environmental protection*" (para. 26).

164. Mouchel's sampling points are too deep and totally inappropriate (para. 28). There are a substantial number of domestic wells (17) as receptors and two group water schemes within 4 km, as well as a well identified by the GSI within 4km. The GSI lists the aquifer as highly vulnerable (para. 29).

165. The approach adopted by the council "*is fundamentally erroneous and unsafe" and "is predicated on an approach which in [his] opinion could not be justified given the nature of this site and the character and quantity of waste*". (para. 32).

166. Under cross-examination he reiterated his view that there was a significant risk arising from the data (15th July, Q. 38).

167. While ammonia can be produced by agriculture, in his view the landfill was a contributing factor (Q. 46).

168. While the point was made in cross-examination that there is no indication now of current pollution in the river, the movement of pollution could take years to develop (Q. 51). The pollution could reach the river through groundwater or surface drainage (Q. 52).

169. Prof. Johnston indicated that he was not basing his conclusions on two locations only but on a range of investigations including by OLR and WYG.

170. The following specific elements were put to Prof. Johnston.

171. ERML in the course of preparing the EIS found no hazardous waste in the 60 plus trial pits (Q. 80). Prof. Johnston accepted this but noted that they did find non-hazardous waste (Q. 81). WYG had 45 trial pits and found no hazardous waste. Prof. Johnston said that the BH-12-09 hole found such waste (Q. 84). WYG took 26 samples for analysis of soil; only 2 exceeded the hazardous limits (Q. 88). Mr. Byrne took 8 soil samples for WAC analysis and 1 (asbestos) was above the limit (93). Mr. Connolly put that 38 samples were taken for WAC analysis leading to 1900 parameters analysed, but only 3 were above the non-hazardous thresholds (Q. 95). It was suggested that findings from two locations should not "*trump*" the rest of the data (Q. 97). Prof. Johnston indicated that it was important to distinguish between the water and waste. The key was how leachable was the waste. Prof. Johnston disagreed that the values in groundwater as measured in the trial pit were unreliable (Q. 97).

172. An attempt was made to suggest that BH 12-09 was incorrectly measuring the water level (QQ. 163-231). Prof. Johnston's view, which I accept, was that this was very unlikely. The approach of excluding unhelpful data as being outliers has characterised the council's approach throughout. Much was made of the lack of variation of the water level in BH 12-09 which Mr. Connolly called a "*rogue borehole*" (Q. 222). Prof. Johnston was not excluding something wrong with the borehole but broadly his evidence was that it was unlikely that the borehole results were inaccurate.

173. It was suggested that the waste was above the groundwater in Zone C (a position which Prof. Johnston rejects), that a cap to prevent rainfall would break the linkage (Q. 239). Prof. Johnston indicated that this was too simplistic and that while a cap would reduce the flow of leachate it will not prevent it. He indicated he would dispute "*very strongly*" (Q. 283) the proposition that risk would be thereby prevented. The problem is the leachate pathway through highly permeable sand and gravel; this constitutes a very significant risk to the groundwater receptor.

174. The argument was put that if there was a risk it would have manifested itself between 2003 and 2017 (Q. 242). Prof. Johnston said there has not been a serious attempt to look at the groundwater immediately beneath the landfill (this goes back to the point about choice of data points). The degradation can be measured in decades. Thus monitoring processes for closed landfills are measured in 20, 30, 40 or 50 years (Q. 242).

175. Much was made of the argument that the water level only reached a maximum of 141 AOD only once in January, 2016, at BH 14-04. However, even leaving aside the issue of the location of the boreholes, and even assuming *arguendo* that the bottom of the waste is at 139.78 AOD, there were intrusions into the waste on several occasions in February/March, 2014 and February/June, 2016 in a number of boreholes/monitoring wells.

176. Much was also made of sulphate concentrations in groundwater from March 2014 to October 2015 which were below the groundwater screening values. Prof. Johnston considered that these showed a leachate effect, albeit below screening values.

177. The manganese concentration levels exceed the screening value. Prof. Johnston said the figures were significant insofar as they show that there is an emanation from the waste. The fact that there are elevated values compared to elsewhere shows there is an impact of the waste.

178. The nitrogen concentrations in groundwater involved an exceedance for a down gradient site at MW 04-04.

179. Prof. Johnston was asked about the comparison of results from BH 14-01, 14-02, 14-03 and 14-04 and 14-05 which showed

fewer exceedances than those obtained from LP4-TP03 by Minerex (Q. 47). Mr. Connolly's thesis was that boreholes are more reliable than trial pits because one gets a view over time and because the digging of a trial pit could disturb other material. Prof. Johnston said he had a significant issue with the comparison table because BH 14-01 to 05 are significantly deeper than the base of the landfill. The compliance point is the base of the waste, and below that there are groundwater flows which dilute the contaminants. There is also an issue with the direction of the landfill and what path it is taking. The gradient in the groundwater is pushing leachate towards the river. Thus leachate flows are strongly lateral. Once they emerge into the groundwater they may take the same direction of the overall groundwater, which is towards the river, although it is affected by the level of the floodplain, at or just below the level of the waste. There is a hill and a horizontal flood plain over about 90m which helps to focus the flow towards the river. Because the boreholes are below the landfill there is upward flow from the bedrock. The Minerex samples were taken at or very close to the water table in Zone C and therefore it is unsurprising that the values produced from that trial pit are significantly higher. The trial pit results were a "*much better indicator*" of the condition of the leachate (Q. 53). I accept this evidence. Even looking at the council's testing there was significant variability in the results not a steady decline. Prof. Johnston said that it was not a question of one dig; it was one sample in Zone C together with other samples that indicated significant leachate contamination.

180. Mr. Connolly attempted to put forward the thesis that the boreholes were not below the waste because they had "*holes*" rather than just detecting at the bottom of the borehole (Q. 54). (One can note that not long after Prof. Johnston left the witness box, Mr. Connolly's Mouchel witnesses launched a somewhat new and contradictory theory that the boreholes were below the waste and had to be so to avoid causing pollution.)

181. It is clear that the boreholes do not detect contaminants throughout their entire length. Each one has a "*response zone*" which are shown as contoured in blue in a diagram at Exhibit 2TE6. It is clear from that diagram that the response zone of the boreholes is well below the bottom of the waste and well below the key compliance point of the junction of the waste with the groundwater. BH 1209 is a possible exception in the sense that it appears within Zone C waste itself. Mr. Connolly then changed tack somewhat to accept that the boreholes were 2 to 3 metres below the waste but suggested that this was in order. Prof. Johnston rejected that for reasons rehearsed and I accept his evidence.

182. As regards TP3, it was put that the waste was disturbed into the trial pit. That is highly speculative and suggests that the pit was incompetently dug, which there is no evidence for. Prof. Johnston was of the view that what was being tested was leachate and I accept this evidence.

183. As regards 2016 testing, Mr. Eckhart was of the view that elevated values were the result of local redox conditions - it was put that TP3, if reliable, was a snapshot and not representative of the overall situation over a prolonged period. Prof. Johnston said it was a snapshot like any testing but the elevated values are indicative of leachate emanating from the site.

184. Mr. Shine referred to the relatively impermeable nature of the material covering the waste, but Prof. Johnston considered that to cover the waste with other waste materials was not good practice. Insofar as Mr. Shine's report in 2009 did not indicate huge concerns, Prof. Johnston stated that things had changed since then. Mr. Shine accepted that all landfills emitted elevated levels of certain contaminants but that dilution and natural remediation occurred before the contaminants left the site. Prof. Johnston was of the view that dilution was occurring but that for hazardous materials, even non-hazardous waste, such dilution was either not permitted or not good practice.

185. He accepted that we do not know which contaminants will pose a problem and extent of risk is not known. Prof. Johnston said it was an estimable factor. This is what risk assessment is about, an estimate of the likely impact of different scenarios. We do not know what particular chemical will cause problems but we have a couple of candidates. The extent of impact is unknown. As to where it impacts, Prof. Johnston relied on the fact that the receptors are in or very close to the waste.

186. It was suggested that removing all of the waste was a "*counsel of perfection*" (Q. 101). Prof. Johnston's expert evidence was that the option to remove the waste is the preferred option

187. Mr. Connolly's position was that there may be a risk; we need to know more before you could know whether there is a real risk and whether remediation needs to be done. The spin that more research is needed is normally a superficially plausible one but it was firmly rejected by Prof. Johnston. Whether there is environmental risk can be evaluated at this stage; one has three main waste bodies with inert waste, non-hazardous waste and pockets of hazardous waste; under various elements of good practice including the groundwater, water framework and waste directives, given that the site is in or on the receptor of groundwater and next to the cSAC, the waste must constitute a risk that has to be mitigated. Partial remediation "*has not got there*" (Q. 111) in his opinion. It is not a question of one person's opinion against another – in his opinion everything should be taken out of the site to address a risk even if that may not manifest for 30 or more years. His position was that it is demonstrable that the risk has not been mitigated – waste is still sitting in the groundwater albeit not necessarily all the time.

188. On re-examination he said that the fact that hazardous waste was found repeatedly in Zone C makes it a "*significant risk by any measure*". Emphasis was laid on the groundwater directive that any pollutant had to be prevented from discharge into the groundwater. If it is hazardous waste one cannot allow indirect discharge. How that has been embodied in practice in the landfill directive is the requirement of barriers.

189. Around BH 12-09 the average water level was 141.11, thus well above the base of the waste at 139.78 m OD. This was a significant issue.

190. In his view sand and gravel beneath Zone C was permeable and did not provide a barrier to leachate.

191. Finally, and perhaps crucially, in his view removing all waste would be a more cost-effective solution than removing it, putting in a liner, and putting it back.

Ian Byrne

192. Mr. Byrne is an environmental consultant and is principal of Byrne Environmental Consulting Ltd. While his areas of specialisation were to some extent challenged by Mr. Connolly he seemed to me, having had the benefit of seeing and hearing him in the witness box, to be a very impressive and reliable witness with a clear understanding of what was and was not his area of primary expertise and who approached his tasks with independence and intelligence. I accept his evidence and prefer it to that of the council's experts where he differs from them.

193. He analysed gas emissions in Zone C (landfill 4) and found concentrations of up to 8% of methane and 5% of carbon dioxide in

January, 2017. This compared with perhaps 40% of methane in a municipal landfill (filled with domestic organic waste), a fact much relied on by Mr. Marron and the council. However, this argument fails to take into account the nature of this site. One does not find houses on or adjacent to municipal landfills. The notion that gas emissions on this site are fine because licensed council dumps are much worse is based on a false premise.

194. He observed odours consistent with toxic gases. His affidavit indicates that the gas monitoring arrangements in place do not comply with EPA guidance and he was also of the view that more sophisticated vents of the type that he considered more appropriate would have produced better results than the type of vent in place. He referred to his results as more "*indicative*" and "*not necessarily accurate*" due to the lack of proper infrastructure. There were no vents apart from Zone C. He was critical of the removal of previous vents following the remediation process, comparing it with the dump at Ballyogan which has a "*huge monitoring regime*" which will endure "*for decades*". He said there was no proper gas collection system in place and that only random pockets are being vented and that the system in place was contrary to the EPA manuals. He stated that passive vents should not be used for monitoring landfill gas.

195. Passive gas vents are characteristic of other landfills, in particular closed landfills. Under cross-examination he said that the absence of proper infrastructure on site limited his ability to make long term predictions on the basis of the gas-related findings.

196. He also took soil samples from 8 random locations and sent them to Scientific Analysis Laboratories of Hadfield St. Manchester. In Zone A (LF1) there were elevated levels of sulphate 1700 mg/kg as well as asbestos, which he averred was "*of very serious concern as asbestos is classified as hazardous waste due to its carcinogenic properties*". In Zone B there were elevated levels of sulphate and dissolved solids. His conclusion was that "*organic waste material continues to degrade within the landfill mass and is indicative of water ingressing and saturating the landfill waste*". His view was also that the presence of asbestos in Zone C indicated that this finding "*classifies that area as a Hazardous Waste Landfill and confirms that a serious risk to human health continues to exist on the site*". He considered that the percentages contained in the CL:AIRE document were not relevant to the Whitestown situation because it dealt with occupational exposure rather than environmental exposure.

197. He averred at para. 9 that it is clear that organic waste will pollute the groundwater. While not a hydrogeologist, he has gained from experience a good understanding of the mechanics of pollution mechanisms of this kind.

198. Broadly, he stood over his affidavit evidence under cross-examination in a measured and impressive manner, having had the benefit of seeing and hearing him. Much was made by Mr. Connolly of the absence of details of the precise locations of where the random samples were taken. While scientifically he accepted no predictions could be made from such a sampling, one out of eight showing asbestos represented a "*potential risk*", albeit one not quantified and even accepting that the sample of asbestos fibre could have been very small. He accepted that in other landfills one could not exclude small findings of asbestos and that this would not necessarily amount to a basis to close down a whole site. His understanding was that the site included construction and demolition waste from Dublin which could include asbestos material. He did not think that the trommelled materials were tested for asbestos. Given that bulk asbestos was found (0.1 tonnes) it was likely that there was "*an awful lot more*" and that residual asbestos could have come out of the trommelling process. It was "*a likely probability*" that there was more. His concerns related to the nature of the material brought to the site, the nature of the trommelling (breaking down) process carried out by the council and his own findings. These seem to me to be compelling concerns, very lucidly and soberly expressed by Mr. Byrne. The fire risk was not strongly pushed by him in his oral testimony.

Cecil Shine

199. As Mr. Shine was unfortunately not available to be cross-examined for personal reasons, Mr. Connolly put his objections to Mr. Shine's methodology and conclusions to Dr. Nealon and Prof. Johnston instead. It was agreed that the affidavit could be admitted, that the council were not held to have admitted anything by not cross-examining, and Mr. Shine was to be taken as having been challenged by the council by way of the cross-examination of Dr. Nealon.

200. Mr. Shine's affidavit of 10th June, 2015, exhibits a report of his investigation and water sampling and analysis. His brief was to carry out sampling and analysis of groundwater and soil, with particular reference to Zone C.

201. His conclusions were that moderate impacts from Zone C might be present on groundwater quality immediately down gradient. A more detailed investigation would be required in order to establish the level of risk if any to the environment and the mitigating effects of the measures put in place.

202. While the term "*moderate*" is used in the conclusions (p. 13, s. 4.1), the results and assessment section indicates significant exceedances of reference limits in the groundwater and soil chemistry for a number of pollutants in a number of instances. It is certainly true that Mr. Shine formulated his results in a commendably cautious scientific style, emphasising (as is often the case in technical studies) that further work is required, a caveat that has become such a scientific cliché that it has been expunged from some academic contexts. Prof. Johnston puts the matter in more robust terms, drawing the conclusion that there is significant risk. But the conclusion follows from the data even if Mr. Shine phrased it more cautiously. Prof. Johnston defended his conclusion convincingly under cross-examination and I accept his evidence particularly in terms of the conclusions he drew from Mr. Shine's work. Furthermore, Mr. Shine was commenting on his own data rather than the full suite of data which some of the other witnesses have had access to.

203. As regards soil, all of the soil samples showed to be non-inert, mostly due to elevated sulphate and total dissolved solids in the leachate (s. 4.2). Apart from Zone C which would require further assessment due to the substantial presence of mixed waste, all other samples are non-hazardous.

204. A criticism was made as to the lack of co-ordinates or elevations in Mr. Shine's report but this does not seen to me to be a crucial objection.

205. Overall I consider that the challenges to Mr. Shine's methodology have not been made out.

Ray Stokes

206. Mr. Stokes is the principal of Brownfield. His affidavit of 5th June, 2015, para. 4 pointed out that the EPA licence obtained by Brownfield required that all waste would be removed from the site, treated and appropriately disposed of. His oral evidence did not hugely advance matters beyond what is in the case from other witnesses.

Overall assessment of the expert evidence

207. The case presented a major conflict of expert and other evidence and presented a very tangled web of scientific and other data. The economist Thomas Sowell is associated with the phrase that "*For every expert there is an equal and opposite expert; but for every fact there is not necessarily an equal and opposite fact*". (Versions of that aphorism have also been attributed to others including Arthur C. Clarke). A conflict between experts is a conundrum for any court. But Sowell's phrase provides one option to unlocking that conundrum; one must look at the extent to which the experts took all relevant facts into account (see *Nolan v. E.S.B.* [2015] IEHC 765) as opposed to dismissing unhelpful facts as outliers, or seeking unconvincing reasons to exclude them from the overall picture. One must also examine whether the experts proceeded in a scientific manner rather than being unduly influenced by their clients' agendas, for example whether the downgrading of the risk assessment was being suggested by the council rather than by consultants. In the environmental area one also has important Charter-level principles to guide the approach, including the precautionary principle which must guide the assessment of risk, the principle that the polluter should pay, and the commitment to a high level of environmental protection. Furthermore, in the present case there is the fact that a considerable amount of expert evidence that does not entirely suit the council's current agenda was put forward by the council itself prior to its change of position. Finally there is the not-to-be-entirely-dismissed question of demeanour and manner of giving evidence, which can throw at least some light on the reliability of even expert testimony. Having seen and heard the witnesses and considered the content of their evidence, I generally prefer the evidence of the witnesses for Brownfield over that of the evidence of the witnesses for the council. Some detailed reasons for this are set out above and I will elaborate further on certain aspects when turning now to the key questions raised on the agreed issue paper.

Level of environmental risk to trigger s. 58 relief

208. Under s. 5 of the 1996 Act, "*environmental pollution*" *means, in relation to waste, the holding, transport, recovery or disposal of waste in a manner which would endanger human health or harm the environment, and in particular—*

(a) create a risk to waters, the atmosphere, land, soil, plants or animals,

(b) create a nuisance through noise, odours or litter, or

(c) adversely affect the countryside or places of special interest".

209. Mr. Bland submits that "*risk*" as envisaged in s. 5 of the 1996 Act means any risk of any adverse consequence. Mr. Connolly initially submitted that it means a more than *de minimis* risk of a more than *de minimis* consequence. It seems to me that if all an applicant has is *de minimis* matters, he or she may find that *non curat lex* applies. On balance I prefer Mr. Connolly's (original) interpretation of s. 5 for that reason.

210. At a very late stage in the proceedings Mr. Connolly launched a restrictive interpretation of the section to the effect that:

(i) as s. 57 refers to circumstances where the holding etc. of waste "*causes or is likely to cause environmental pollution*", s. 58 must refer to a "*current risk*" rather than a risk yet to occur;

(ii) an order under s. 58 is in the nature of a *quia timet* injunction and thus should only be granted if there is a "*proven substantial risk of danger*": *Szabo v. Esat Digifone Ltd*. [1998] 2 I.L.R.M. 102; *Mahon v. Butler* [1997] 3 I.R. 369, *Attorney General (Boswell) v. Rathmines & Pembroke Joint Hospital Board* [1904] I.R. 161, *Minister for Arts, Heritage and The Gaeltacht and The Islands v. Kennedy* [2002] 1 I.L.R.M. 94, *Walker v. Leonach* [2012] IEHC 24 (Unreported, High Court, MacMenamin J., 8 February, 2012);

(iii) the lack of clarity as to the location, dimension, nature and timing of the risk precludes an order;

(iv) the Brownfield position is alarmist and a "*proportionate*" response is required; further study is necessary;

(v) the council can be relied on to prevent a risk as it will remain in position as a statutory authority indefinitely.

211. In a sense one almost has to admire the chutzpah of the council in pushing through full removal of all waste from the sister site in *Fenton*, while in this case advancing points which would have precluded reliefs such as those the council obtained in the companion litigation. As in the No. 2 judgment, the council is making arguments that suit its position as a polluter and not as an enforcer of environmental law. Its position in this case amounts to a polluters' charter which, if accepted, would radically undermine the effective implementation of EU environmental law. The council itself and many of the *dramatis personae* in this case were also involved in the sister case *Fenton*, which as I have been frequently reminded during the proceedings, culminated quite rightly in a celebratory event in Hunter's Hotel in Rathnew. There would have been little for the council to celebrate on that occasion if the restrictive arguments as to the interpretation of legislation, or the need to exercise discretion against full remediation, that are being launched by the council in this case, had been accepted by O'Sullivan J. in *Fenton*.

212. Accepting these submissions would significantly dilute the effective enforcement of EU environmental law. It would be tedious to repeat the points already made in Module I in this regard. Caselaw on injunctions generally does not necessarily help when we are dealing with specific legislation designed to enforce the principle of effective judicial control of EU legal obligations. I derive support for that view from the Supreme Court decision in *Meath County Council v. Murray* [2017] IESC 25 at para. 82 *per* McKechnie J., speaking of the somewhat analogous provisions of s. 160 of the Planning and Development Act 2000: "*the jurisdiction to grant injunctive relief, or to withhold it either conditionally or unconditionally, is to be found within the section, whose construction is to be informed by the Act as a whole. Whilst undoubtedly a discretion exists, the parameters within which that must be exercised must likewise be statutorily based. Accordingly, equitable principles cannot be used to expand the discretionary aspect of the section unless such are found within it.*"

213. Again I go back to the Department's letter to the Judicial Studies Institute emphasising the need for effective enforcement. This affair is perhaps unlikely to be presented to future students of public administration as a successful example of joined-up official thinking. What is particularly concerning about the council's arguments is the admission from the architect of the remediation plan, Mr. Marron, that if private parties were in the dock, we would now be looking at full remediation. If the objectivity inherent in the rule of law is to have any meaning, the council-as-polluter should not be held to a lower standard than that to which the council-as-enforcer would seek to have a private polluter held.

214. In *Laois County Council v. Hanrahan* [2012] IEHC 209 (Hedigan J.) and [2014] 3 I.R. 143 (Supreme Court), the county council

applicant, co-incidentally represented by the same leading counsel, submitted to the High Court that "*it is appropriate to apply a purposive interpretations of the Waste Management Act 1996*", a submission which I would endorse.

215. Point (i) seems to read too much into slightly inconsistent drafting but even if there is something in it, it makes no difference to this case as the risk currently exists. The fact that hazardous wastes are not, for example, showing up as yet in the river does not mean that the risk is not there at present. The issue is whether there is now a risk of pollution which may occur either now or in the future. The point is somewhat semantic anyway as there is not a lot of difference between a present risk of future harm and a future risk of future harm.

216. Point (ii) seeks to roll back the clock prior to the amendment made by reg. 19(2)(c) of the Waste Management (Registration of Brokers and Dealers) Regulations 2008 (S.I. No. 113 of 2008) which deleted the qualifier "*to a significant extent*" before the reference to endangering human health or harming the environment in the definition of environmental pollution. I would reject the notion that the term significant can or should now be read back into the Act. A s. 58 injunction is not to be equated to a *quia timet* injunction; it is a remedy to ensure the effective enforcement of EU environmental law. The context was emphasised in the judgment of O'Sullivan J. in *Fenton* at p. 70: "*Once there is a risk, then that risk itself constitutes pollution and it should be eliminated*".

217. Point (iii) would stymie the effective implementation of environmental law. It is simply not possible to say in a wide variety of cases when precisely pollution will occur as a result of unlawful acts, where exactly this impact will occur and so on. Protection of the ecosystem cannot be dependent on such a pedantic, pencil-pushing insistence on *faux* certainty. It is enough – more than enough – to know that unlawful acts have caused a risk to the environment. To demand particulars of when the risk will emerge prior to ordering remediation would be to open up a polluters' charter.

218. Point (iv) is a sort of vanilla defence that gets the council nowhere. Further research is always an option to float in any situation. It is not generally an answer and in particular it is not an answer here because (a) the council's methodology here was flawed from the outset – adding more monitoring will not rectify that; and (b) environmental risks have already been established on the evidence that warrant an order being made.

219. Point (v) is of little weight. Any presumption of regularity in favour of the council has been well rebutted for reasons discussed in Module I and that are reinforced from this judgment.

Whether the remediation carried out complied with the EPA Code of Practice and/or the ministerial circulars?

220. In 2000 the EPA produced a document entitled "Landfill Manuals: Landfill Site Design" which contains "*criteria and procedures*" in that regard as set out in s. 62(1) of the Environmental Protection Agency Act 1992. Such criteria are binding on a local authority in relation to "*a landfill site managed or operated by a local authority*" (sub-s. (5)). Mr. Bland submits that the site is within that category. I discuss that issue further below under the heading of whether the council is in breach of the licensing requirements.

221. Whether or not the s. 62 criteria are not strictly binding, they are clearly highly relevant. It would generally be inappropriate and possibly unlawful for a public body to disregard its own published criteria. Mr. Doyle in any event stated that the intention was that the EPA would comply with its own published guidelines.

222. In 2005 the Minister issued a first ministerial direction under s. 60 of the Waste Management Act 1996 (DoEHLG circular WIR: 04/05). Under s. 60(2), local authorities and the EPA are required to have regard to such directions.

223. In 2007 the EPA adopted a Code of Practice on Environmental Risk Assessment for Unregulated Waste Disposal Sites which has a statutory basis under s. 76 of the Environmental Protection Agency Act 1992, although that does not make it directly legally binding.

224. The code states that it is designed to assist local authorities to comply with s. 22 of the 1996 Act and the ministerial direction.

225. Section 22(7)(h) provides that a waste management plan shall "*include information on or otherwise have regard to … the identification of sites at which waste disposal or recovery activities have been carried on, the assessment of any risk of environmental pollution arising as a result of such activities, measures proposed to be taken … in order to prevent or limit any such environmental pollution, the identification of necessary remedial measures in respect of such sites, and measures proposed to be taken … to achieve such remediation, having regard to the cost-effectiveness of available remediation techniques*". The EPA maintains a register on its website of sites identified by councils regarding sites to which this provision applies. In the parlance of the waste management world these are called s. 22 sites and the EPA web register is referred to as the s. 22 register.

226. The code of practice is incorporated in regulations regarding historic unlicensed waste facilities: Waste Management (Certification of Historic Unlicenced (sic) Waste Disposal and Recovery Activity) Regulations 2008 [a rare case of a legal instrument with a misspelling in its short title or citation]. These regulations were made not under s. 22 but under s. 3 of the European Communities Act 1972. They apply to unlicensed dumps operated by local authorities between 1977 and 1997 (see reg. 4(3)). At reg. 6(1) local authorities are required to have regard to the code of practice in carrying out risk assessment. While these regulations do not apply here, they illustrate the relevance of the code of practice to the process of remediation. At the same time the regulations state, at reg. 7(7)(b) that a certificate of authorisation issued by the EPA "*may specify further necessary measures in addition to those identified by the Risk Assessment having regard to ensuring appropriate protection for human health and the environment to ensure conformity with the provisions of Council Directive 2006/12/EC and Council Directive 80/68/EEC*". The emphasis on ensuring compliance indicates an intention that the ultimate outcome will be an EU-law compliant one. The reference to "*ensur[ing] conformity*" would be inapposite if such conformity was optional rather than mandatory. All the more so then that an illegal dump as here should comply with legal requirements.

227. In 2008 a second ministerial direction was given (WPRR: 04/08). This direction specifically says that an enforcement policy should be directed *inter alia* to "*remediation as required, in accordance with the EPA Code of Practice*", thus giving an obligation to have regard to the code as a matter of law.

228. In 2009 a second EPA code of practice was issued for the development of an enforcement policy for unauthorised waste activity.

229. Mr. Bland submits that the remediation failed to comply with the 2007 EPA code of practice and the two ministerial directions, on a number of grounds.

Did the approach contravene the presumption of removal?

230. At p. 7 of the code, under the heading "Application of the Code of Practice for Illegal Landfills", the code states that "*[f]or illegal landfill sites, it is to be assumed that the waste shall be removed from the site except only where it can be shown that an alternative solution provides greater protection to the environment and the health of the local population*".

231. In this regard the code set a slightly more environmentally stringent standard than the ministerial direction which stated that "*all hazardous waste which is detected shall be removed and recyclable material shall be removed unless it can be shown that there are alternative environmentally sustainable options*" (as quoted on p. 1 of the EPA Code).

232. This principle is continued in the statement at p. 24 that "*[i]n the absence of any information to allow further resolution the worst case assumption about waste composition should be applied to the entire body of waste*".

233. Despite the clear statement on p. 7, the council in submissions sought to launch a restrictive interpretation of the code.

234. P. 5 of the code says that certain sites "*shall at all times be remediated*" and lists four categories. The code goes on to say that "*[i]n all of these cases, prior to embarking on the risk assessment process, it is to be assumed that the waste shall be removed from the site except only where it can be shown that an alternative solution provides greater protection to the environment and the health of the local population*". This is repeated on p. 52 under the heading "*Remediation Techniques*".

235. The council's argument is (a) the site does not come within the 4 categories subject to the "*at all times*" phrase; (b) the presumption of removal only applies to those 4 categories; and (c) a risk assessment could satisfy a council that the presumption should not apply.

Does the site come within one of the 4 categories for remediation at all times?

236. Four sensitive areas are identified on p. 5. This is reinforced on p. 17 under the heading "*Leachate Migration Receptors*", where the code states that a number of receptors are considered to be sensitive receptors in respect of leachate migration, including protected areas (including cSACs), wetlands, aquifers, public water supplies and surface water bodies including rivers.

237. The first category is "*lands proximate to existing or planned residential development*". Generally, distances in the code of practice to receptors etc. are to be measured either from the "*site boundary*" (pp. 32 to 33) or "*the waste body*" (pp. 29 to 30). The reference to proximity to residential development refers to "*lands*" rather than "*waste*". The site has a house on it, albeit unoccupied and getting derelict. Thus it is proximate to an existing residential development. Furthermore, there are houses within 60m of the site. That is clearly proximate.

238. The second category is "*wetlands*". Part of the site is wetland, whether or not there is waste on that part. The sensitivity of the site means that on a purposive interpretation, a site such as this should be regarded as coming within the definition of wetland if pollution on the site is capable of spreading to the wetland.

239. On a similar basis the site comes within the third category which includes the cSAC. Part of the site is within the cSAC (hatched in green on Mouchel drawing 1 ver. A, which overlaps with the site contiguous to Zone B); the rest of the site on which the waste is located is adjacent to it but there exist pathways for transmission of pollution to the cSAC.

240. The concept that the code should be read in some sort of literal manner as only requiring a presumption of removal of waste that is actually in a wetland or cSAC rather than proximate to it is a legalistic response, which fails to take into account the permeability of the site and the pathways between the waste and the groundwater and river, and fails to apply the necessary purposive interpretation. Proximity in the case of a vulnerable site such as this is certainly sufficient to bring the code's presumption into play. In any event, the residential development clause would have been enough to trigger the presumption.

241. The fourth heading is "*Places of special interest*". A site adjacent to a cSAC, wetland and river is also a place of special interest if contaminants are capable of spreading to that latter site. (See for example the remarks of Clarke J. in *Cork County Council v. O'Regan* [2009] 3 I.R. 39, at p. 49 para. 26).

242. Thus in my view the site comes within each of the headings requiring mandatory remediation.

Does the presumption of removal apply only to the 4 types of site listed?

243. That the presumption of removal applies to all illegal sites, not just the 4 categories, is clear from p. 7. Thus I would reject the council's position that the presumption does not apply if I am wrong about the foregoing and if the site falls outside those categories. The council's argument would mean that there is no proper flowchart for sites outside the 4 categories. That could not have been intended.

Could a risk assessment be carried out to show that the presumption should not be made?

244. It is clear from the code that the presumption is an approach to be made before the risk assessment and therefore it should guide the risk assessment. It is not the case that a council is free to set about its own risk assessment and then disapply the presumption. In any event, in this case, the point is academic because the council made an executive decision that as much waste as possible would remain on site – a flagrant reversal of the presumption – before the risk assessment was even completed.

Conclusions on the presumption of removal

245. The presumption of removal comes in the context of an attempt to implement EU law and resolve environment proceedings against the State. Its implementation is not a discretionary matter. These principles are a working-out of the overall precautionary principle which is a binding, Treaty-level commitment of EU law. Article 191(2) of the TFEU states that "*Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle …*".

246. It is not being maintained here that leaving at least 93% of the waste on site provides greater protection for the environment than removing it. Far from it. Mr. Marron accepted that if remediation was being sought against a private party then full removal would have been required. It would not be appropriate to hold in effect that an environmentally protective reading should apply if the respondent is a private entity, and a restrictive reading if a public entity.

247. The presumption of removal was not applied. Quite the reverse – the council decided prior to finalising the risk assessment to leave as much waste as possible in the ground. For the foregoing reasons there is a clear breach of the EPA Code of Practice in relation to a fundamental matter determining the whole approach to risk assessment and remediation.

Details of Tier 2 Site investigations and testing

248. The EPA makes clear that the risk assessment must be taken in three "tiers" –

(i) Tier 1: conceptual site model, risk screening and prioritisation.

(ii) Tier 2: site investigations and testing.

(iii) Tier 3: refinement of conceptual site model and quantitative risk assessment.

249. Page 11 of the code requires that at the site investigation and testing stage, tests be taken as to landfill gas generation and leachate volumes. Mr. Bland says that this was not done, save indirectly. Considering the details of what was tested, it appears to me that the full methodology envisaged by the EPA was not carried out.

Extreme vulnerability where waste is in contact with groundwater

250. The code requires at p. 26 that "*[w]here it is known that the waste is in direct contact with the groundwater table then for the purposes of [the] screening exercise it should be considered to be equivalent to the extreme vulnerability rating*". Mr. Bland complains that this was not taken into account because the more vulnerable a receptor is, the more likely it is that there will be contamination.

251. In this case, the risk assessment matrix (exhibit RS7) in the Whitestown Zone C Detailed Site Assessment, November, 2014, stated that the "*probability*" of pollutant linkages in relation to the high groundwater table and vertical and lateral migration of contaminated groundwater (leachate) was, in both cases, "*low likelihood*". This is a complete negation of the code of practice.

Capping and lining

252. Page 29 of the code provides that "*where buildings, structures or other enclosed spaces are present adjacent to or are located within 250m of the waste body … it is assumed that the waste has been sealed by a capping layer without significant cracks, thereby ensuring that the landfill gas cannot escape upwards and is pushed laterally into natural ground*".

253. "*Capping layer*" is not specifically defined in the code but the reference to "*ensuring*" that "*gas cannot escape*" implies that a solid, impermeable layer is required. Zone C has been capped with a plastic membrane, but I accept Prof. Johnston's evidence that this will limit rather than eliminate leachate. The sides and bottom would also have to be lined and the waste encapsulated in order to prevent pollution caused by leachate. The issue here is more one of non-compliance with the landfill directive rather than the code of practice on its own.

254. Zones A and B have been covered (rather than "*capped*") only with soil and trommelled waste which does not constitute a cap as envisaged by the code. Furthermore, any waste on the rest of the site (Zone D) has not been remediated in any way.

255. Annex I to the landfill directive, Council directive 1999/31/EC of April 1999 on the landfill of waste, sets out general requirements for all classes of landfills. Para. 3.3 of that Annex provides that "*[i]f the competent authority … finds that the prevention of leachate formation is necessary, a surface sealing may be prescribed*". "*Recommendations*" for the surface sealing include a top soil cover of 1m, a drainage layer of 0.5m and an impermeable mineral layer. Where the waste is hazardous, an artificial sealing liner is "*required*"; otherwise there must be a gas drainage layer. Mr. Bland submits, in my view correctly, that the code of practice requirement for capping must be construed by reference to the landfill directive which envisages four layers of capping, including an artificial sealing layer for hazardous waste. These measures are absent across the site apart from an artificial cover in Zone C. Thus there has been non-compliance with the code in this respect.

256. Furthermore, the EPA s. 62 criteria are stringent in relation to the need for a bottom liner, stating at s. 6.1 that "*[t]he lining system protects the surrounding environment including soil, groundwater and surface water by containing leachate generated within the landfill, controlling ingress of groundwater, and assisting in the control of the migration of landfill gas*". The lining systems required for hazardous waste landfills are elaborate (p. 27 of the criteria) involving protection layers if required, a leachate collection system, a flexible membrane liner and a mineral layer of specified thickness. The extra layers are also required in non-hazardous biodegradable waste landfills. Even in an inert waste landfill, 1m of mineral layer is required between waste and subgrade, which by definition must be above the groundwater (otherwise the "*lining system*" would not function as specified in the s. 62 criteria and the purpose of the protections would be defeated).

Failure to apply methodology for assessing risk to receptors

257. The code involves a detailed methodology for assessing risk to 6 categories of receptors in relation to leachate migration, assigning points depending on the risk situation. Mr. Bland validly raises a number of issues in relation to these headings.

(i) Human presence: Mr. Bland complains that the code specifies at p. 30 that a series of receptors of pollution need to be considered, including human presence, and that the proximity of dwellings to waste involves a weighting in terms of risk within the conceptual site model. He submits that this was not done here. As there is a dwelling (currently unoccupied) on the waste body, it should have attracted 3 points for risk in accordance with the scheme at p. 30. In any event Mr. Boland accepted that other houses were within 60m, well within the 250m referred to in the code;

(ii) Water framework directive protected areas: As the site is partly within a cSAC, and the waste body proximate to it, this should have attracted 3 points under this heading;

(iii) Under the aquifer category, this is a regionally important aquifer and thus attracts maximum points (5) (WYG did refer to this);

(iv) Public water supply: as the river is a source of water for public supply, and is within 100m of the boundary, thus the highest rating (7 points) should apply;

(v) Surface water body: as there is surface water within 50m of the site boundary, maximum points (3 points) apply here also;

(vi) Landfill gas migration: again as there is human presence as defined (including dwellings) within 50m of the site boundary, maximum points (5 points) apply here.

258. On this analysis, maximum or close to maximum points under each heading arise in relation to the risk to be assessed for this dump. The code is not altogether clear as to whether it is speaking here of severity or likelihood. However, either way it is clear that the points scoring system required near-maximum if not maximum points for this site.

259. The code provides at p. 37 that sites with a score greater than or equal to 70% (which would include this site) should be "*considered to be potentially high-risk or high uncertainty sites*" … "*[t]hese sites will have to apply for a waste regularisation licence or permit*".

260. The site was categorised as high risk (in the approach of the council in the 2005 proceedings) until the WYG report which categorised it as low risk contrary to the code of practice. Mouchel reinforced this with a designation of "*very low risk*" to the groundwater and river.

261. Having regard to the evidence, the risk assessment methodology in the code mandated a description of this site as high risk. The downgrading of the assessment in terms of risk was not scientifically driven but was client-driven, with costs inferentially to the forefront. WYG readily rolled over and downgraded their risk assessment following intervention from Mr. Boland on behalf of the council, which he spuriously and misleadingly called "*minor text changes or typos*". Downgrading risk from high to a lower level could not fairly come within the heading of minor text changes or typos, and the attempt to brush off that change under a less than scientifically candid label is a downplaying which hardly commands confidence in the council's methodology, position or conclusions. Independently of the attempt to pass off the downgrading as "*minor*", it seems to me that the scientific basis for the downgrading has not been made out. Mr. Boland considered that the downgrading was appropriate as the O'Reilly house was derelict, but it is a proximate habitation that warrants an appropriate risk rating, occupied or not, or even derelict (as alleged by Mr. Boland) or not. Even allowing for the O'Reilly house, there are other proximate habitations and multiple other factors supporting a high risk rating. The code criteria were not correctly applied.

262. Finally, the code, at p. 40, also sets out a "*non-exhaustive list of questions that should be posed for the highest risk sites … prior to defining the site investigation programme*". Mr. Bland submits that these questions were obscured in the manner in which the risk was assessed. Certainly the questions were not expressly posed, although I think that many of them are impliedly dismissed. It seems to me that the real objection is to the answers rather than to a failure to pose the questions.

Remediation of wetlands

263. The code at p. 67 provides at appendix 4 of the protection of wetlands in accordance with the Ramsar Convention 1971. It goes on to state at p. 68 that the ministerial directive indicates that "*wetland sites … should be remediated (which may include removal of the waste) in the case of illegal waste facilities which are discovered*". This formulation is not hugely illuminating in the sense that it does not make altogether clear when removal would not be appropriate. Here one falls back on the presumption in favour of removal as stated above.

Consultation with the NPWS

264. Furthermore, the requirement to consult the NPWS prior to finalising the risk assessment was not complied with.

Overall conclusion on the code of practice

265. For the foregoing reasons it is clear that there are multiple breaches of the EPA code of practice in terms of the current, post-"*remediation*" state of the site. These are not matters of detail and go to fundamental matters of the whole approach to risk assessment.

266. One of the concerning features here is that the regulator, the EPA, seems to have potentially compromised its position by its intimate involvement in the council's activities, not just during the "*remediation*" process but, as appears on correspondence, for years afterwards. As regards application of the EPA's own code of practice, the regulator's primary concern on the papers opened to me was not to insist that its own published standards were rigorously applied, but to ensure that the EPA's fingerprints were kept off the solution ultimately adopted. One might legitimately wonder whether the European Commission would have followed up the letter of complaint if they had had full information as to the fact that the code of practice was not being implemented. One might even possibly be forgiven for wondering whether the approach adopted here inspires confidence that the code has been rigorously applied to other illegal sites. One certainly hopes so.

Apart from the issue of direct contact with the groundwater (dealt with in Module I), did the remediation comply with the groundwater regulations and the EPA Classification of hazardous substances of 2010? (Q5(vii) in issue paper)

267. The EPA has produced a number of guidance documents in relation to direct discharges to groundwater.

(i) In December, 2010 the EPA produced a "Classification of Hazardous and Non-Hazardous Substances in Groundwater". This document was apparently (although the wording is ambiguous) produced under reg. 9(c) of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) which provides for classification of hazardous and non-hazardous substances rather than more general guidance on preventing direct discharges overall.

(ii) The 2011 EPA report on "Guidance on the Authorisation of Discharges to Groundwater" is itself obscure and silent as to its legal basis, beyond (at p. iii) saying it is primarily for internal use and also to assist local authorities.

(iii) In 2013 the EPA produced "Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites".

(iv) In March, 2014 the EPA produced a document entitled "Guidance on the Authorisation of Direct Discharges to

Groundwater". Section 56(2)(c) of the Environmental Protection Agency Act 1992 provides a statutory power to produce guidelines for local authorities, but the guidelines in question appear to be primarily for internal use and do not specifically state that they are produced under statute. Page 21 of the document says that it should be read as supplementing the EPA report on "Guidance on the Authorisation of Discharges" to Groundwater of 2011.

268. It is, I think, not ideal that the statutory basis, if any, of guidance documents produced by a public body should be left to be inferred rather than being stated expressly on the face of the document. This is an issue that goes well beyond the EPA but in principle it should not be that difficult for public bodies to state either that their document constitutes non-statutory guidance or alternatively that the document is issued under an identified statutory provision.

269. Regulation 9(c) of the 2010 regulations provide that "*[f]or the purpose of establishing measures to meet the requirements of this Regulation, the Agency shall, as a first step, identify and publish a list of substances belonging to the families or groups of pollutants referred to in Schedule 2 which are to be considered hazardous or non-hazardous and which the Agency considers to present an existing or potential risk of pollution. The list of hazardous and non-hazardous substances shall be published in a technical report by 22 June 2010 at the latest and shall set out the basis for the Agency's determination in relation to the substances listed therein*".

270. Regulation 9(e) provides that "*[t]he Agency shall, as it considers necessary, periodically review and publish the list of substances considered hazardous or non-hazardous, and shall prepare and make publicly available a technical report setting out the basis for the Agency's determination in relation to the substances listed therein*."

271. Mr. Connolly submits that the list is in the nature of a guideline, in the sense that it is not stated in the regulations to be determinative of what is or is not hazardous. That is probably right in the ultimate sense that the underlying prohibition is that in reg. 9(a): "*The input of hazardous substances into groundwater is prohibited*". This seems to have an autonomous meaning (to be determined, as with the meaning of any statute, by the court), but the EPA is entitled to form a view as to what is or is not hazardous, to which impliedly a court can have regard. Even apart from the implications of Article 15 of the Constitution, the regulations are not drafted in a way that suggests that the EPA determination is in some way conclusive or determinative of the definition of what is or is not hazardous.

272. The 2010 regulations are made under Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy and giving effect to Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration. The parties are agreed that the groundwater directive prohibits the direct discharge of hazardous substances without defining them and thus definition is left to the member states.

273. The water framework directive at art. 4(1)(b)(i) provides that "*Member States shall implement the measures necessary to prevent or limit the input of pollutants into groundwater …*". Article 11(1) provides that "*Each Member State shall ensure the establishment for each river basin district … of a programme of measures*" which must under para. (3)(j) include "*a prohibition of direct discharges of pollutants into groundwater*" subject to limited exceptions which do not apply here. This latter prohibition has been given statutory effect in reg. 8(a) of the 2010 groundwater regulations. Pollutant is defined in reg. 3(1) as "*any substance liable to cause pollution*", in particular a non-exhaustive list in sch. 2 of the regulations.

274. Article 6(1) of the groundwater directive provides for a more general prohibition on "*inputs into groundwater of any hazardous substances*" (para. (a)) and a requirement that "*other non-hazardous pollutants … considered by Member States to present an existing or potential risk of pollution*" requiring "*all measures necessary to limit inputs into groundwater so as to ensure that such inputs do not cause deterioration or significant and sustained upward trends in the concentrations of pollutants in groundwater*" (para (b)).

275. A definition of waste by category arises from Commission Decision 2014/955/EU of 18 December 2014 superseding Commission Decision 2000/532/EC (the EU waste catalogue). The decision is authorised by Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC which authorises a procedure for identifying waste as hazardous. The 1967 regulation appears to have been the operative one at the time when the waste was put in the ground. In the 2000 decision, asphalt is not identified as hazardous waste but other types of tar are hazardous. In the 2014 regulations asphalt is not specifically mentioned and bituminous substances are included as not in principle hazardous, although certain sub-categories are defined as hazardous.

276. It is not altogether clear whether the EPA list draws on the Commission list, or indeed why it is left to member states to draw up their own lists when there is an EU list available.

277. The argument being made here is that insofar as there is direct discharge of pollutants listed in the EPA classification, there is a breach of the EPA guidance and the groundwater directive. I see no rationale in this case not to be guided by the EPA document as to what is or is not hazardous.

278. Resolution of this issue depends on whether hazardous substances have been discharged into the groundwater. Mr. Bland submits that the particular hazardous substances being discharged are those that are picked up on monitoring as set out by Mr. Shine, namely lead, strontium, barium, diesel range organics, mineral oil, benzene, m,p-xylene, isopropylbenzene, propylbenzene, 1,2,4-trimethylbenzene, sec-Butylbenzene (exhibit CS1). These were found in the groundwater in January, 2015 in a trial pit (L4-TP3) on the edge of Zone C. This depends on whether the water found is actually groundwater or instead is perched water or leachate migrating laterally. Mr. Bland's fall-back argument in that situation is that even if this water is not itself groundwater it will make its way in due course into the groundwater, and this was ultimately accepted by Mr. Marron.

279. On this issue, having heard and seen the witnesses, including the evidence regarding the manner in which water flowed into trial pit L4-TP3, I consider that the water from which these samples were taken was probably groundwater. Thus there is direct discharge of hazardous material into the groundwater. If I am wrong about that, it was accepted by Mr. Marron that the water would eventually make its way into the groundwater in any event.

Is there a current environmental risk arising from waste on the site?

280. Applying the EPA code of practice, this is an illegal dump and a risk assessment must start from the presumption that all waste should be removed. That could be displaced if retaining waste on the site would provide better environmental protection than

removing it. That is certainly not the case. Thus the waste should be removed. Even if it was not to be removed, its retention constitutes long-term storage which would require a licence which does not exist.

281. At one level the case is as simple as that.

282. However, that conclusion is massively reinforced by a battery of aspects of the situation that create a risk of environmental pollution in this case and reinforce the case for full removal, and which I can attempt to summarise as follows by way of the following findings of fact and determination of issues as the case may be.

The nature of the site
(i) "*The site is wholly unsuitable as a landfill*", to adopt the language used (at the council's urging, in support of an order for full removal of all waste) in *Fenton No. 2* at p. 70.

(ii) A heightened level of sensitivity to risk must arise from the site's proximity to a cSAC.

(iii) The council's witness Mr. Marron said that it was not appropriate to have a landfill at this location so close to an SAC but if it was properly engineered that might be a matter for the EPA. But the EPA thought the location was so inappropriate that even an engineered landfill was not going to be licensed.

(iv) The site is "*very close*" to a river, again adopting *Fenton* at p. 70. In *Fenton*, the distance was 800m, here it is more than ten times closer - 60m from Zone A, 90m from Zone B and 145m from Zone C. Again this upheld a council argument in support of an order for full removal of all waste.

(v) In particular, the cSAC is associated with a river from which drinking water is drawn. Risk cannot be answered on the basis of a lack of current data as to current pollution in the river; the presence of waste in such proximity to the river with a clear potential pathway itself creases risk, even if that cannot be precisely defined and measured.

(vi) The river is also an important salmon spawning and nursery river.

(vii) The Inland Fisheries Board expressed the position that the salmonid river with its adjacent flood plain can be regarded as a particularly sensitive receptor.

(viii) The site is "*located on permeable material*" – again a factor that the council successfully urged as a basis to justify removal of all waste in *Fenton* at p. 70. The site is recognised as vulnerable and highly permeable.

(ix) The bedrock aquifer is mapped by the GSI as locally important.

(x) The aquifer is "*in complete hydraulic continuity with the overlying sand and gravel*" (para. 19).

(xi) As noted above, the geology of the site is such that the council's consultants state that "*groundwater in the bedrock is in hydraulic continuity with groundwater in the overburden. The waste sources therefore have the potential to contaminate groundwater beneath the site in the sands and gravels in the underlying bedrock. It is likely that groundwater in the region discharges to the Carriggower (sic) River and therefore any contamination of groundwater at the site has the potential to impact on the Carriggower River via natural groundwater flow*" (White Young Green (WYG) Tier 2 & 3 report, p. 16).

(xii) The presence of a number of dwellings in and around the vicinity of the site makes it unsuitable as a landfill.

The previous EPA decision that all waste be removed
(xiii) The EPA have already specifically required all non-inert waste to be removed from the site in the licence granted to Brownfield.

(xiv) Such a position is consistent with the conclusion that to allow waste to remain on site is environmentally unacceptable. Inferentially, since an EIA was required for the licence, it follows that the EPA was satisfied that removal in itself would not cause undue adverse environmental impact (although, as mentioned elsewhere in this judgment, the manner in which the EIA process was handled by the EPA does not appear satisfactory).

(xv) The decision was also made "*having regard to the need for a high standard of environmental protection*"

(xvi) The EPA also stressed the precautionary principle, stating in the decision that it was made having regard to "*the need for precaution in relation to potentially harmful effects of emissions from this waste*".

(xvii) The decision noted that the site was within 100m and directly up-gradient of the Carrigower River, designated as a site of Community importance (salmonids).

(xviii) The EPA also stated in the decision that "*the underlying geology is highly permeable*".

(xix) Furthermore the EPA licence emphasised that "*two residences lie immediately adjacent to the proposed landfill approximately 20m from the facility boundary and 40m from the landfill footprint*".

(xx) The decision also notes that it complies with Circular WIR: 04/05 and art. 8 of Council Directive 75/442/EEC of 15 July 1975 on waste.

The council's previous position that all waste be removed
(xxi) The council in its submission to the EPA sought to have all non-inert waste removed from the site.

(xxii) The council in its approach in the 2005 proceedings sought for a number of years to have all non-inert waste removed from the site.

The acceptance that if the defendants were private parties, full remediation would continue to be sought
(xxiii) As noted above, in his oral evidence at the hearing Mr. Marron accepted that if private parties were being asked to

remediate the site, the approach of full removal of waste would be applied.

The previous representations to the court
(xxiv) O'Keeffe J. was assured by the council that Brownfield would get a remediated site back, and he granted an adjournment mid-hearing (after 23 days) on that basis. The submission, made by Mr. Connolly on 13th December, 2011 (p. 37 of transcript) was that "*At the end of it all, Brownfield, instead of having a highly polluted site, will have a remediated site, probably enhanced in value, and it may be that the benefit or windfall to them may have to be offset in some way at a later stage under the section 58 proceedings which we're adjourning when we come back to look at who pays for the clean-up costs and what they may all cost*". But Brownfield are not going to get back a remediated site if I accede to the submission now being made by the council. Indeed they will on that premise never get the site back (unless the EPA were to capriciously U-turn and give Brownfield a licence to hold the waste). Removal of waste is the only way to give effect to the representations to the court which were the basis on which the council secured an adjournment of the previous hearing. Therefore, even disregarding all other considerations, it would be unjust and inequitable not to hold the council to the outcome that they assured the court would be achieved and on the basis of which they secured an advantage in the 2005 litigation.

The precautionary principle
(xxv) "*I must also bear in mind that the precautionary principle must apply when the court is making an order for the protection of the environment or the remediation of pollution*", as O'Sullivan J. said (adopting a council submission, in support of an order for full removal of all waste) in *Fenton* at p. 70. I have discussed the precautionary principle further in the Module I judgment and that discussion is relevant here. Under Art. 191(2) of the TFEU, Union environmental policy is "*based on the precautionary principle and on the principles that preventive action should be taken, [and] that environmental damage should as a priority be rectified at source...*"

The principle of a high level of environmental protection
(xxvi) Article 191(2) of the TFEU also states that "*Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union*". That firm commitment to a high level of environmental protection cautions against a lax or tolerant approach to environmental risk, especially in a context where implementation of EU law is in issue.

The polluter pays principle
(xxvii) Under Art. 191(2) of the TFEU, "*Union policy on the environment … shall be based on … the principl[e] … that the polluter should pay*." Applying a teleological approach, O'Sullivan J. in *Fenton* held that such a principle meant that a s. 58 order could be made if an activity or omission contributed to the bringing about of pollution, notwithstanding absence of proof of intention, foreseeability or recklessness or notwithstanding that the act of a third party or some natural event might have intervened as a contributing factor or subsequent link in the causal chain. This principle is highly relevant here. To fail to provide for full remediation by the council in respect of pollution to which it contributed would contravene the polluter pays principle.

The volume of the waste
(xxviii) The record-breaking volume of the illegal waste is a strong factor favouring full remediation. In *Scully*, 10,000 tonnes were in issue and full remediation was ordered. In *Hanrahan*, Fennelly J. at p. 157 referred to the "*shocking fact that a huge amount of deleterious and polluting waste material was deposited on the lands*" in that case. Given that the Supreme Court was shocked by 8,000 tonnes there (p. 54), and required full removal, one can only imagine its reaction to an illegal dump that is over 31 times the size. A large size of waste (and unfortunately therefore a large cost to removal) is strongly a reason enhancing the case for removal, not one against it. Otherwise things would truly be as described by Jonathan Swift, in that "*Laws are like Cobwebs which may catch small flies, but let Wasps and Hornets break through*" ("A Tritical Essay upon the Faculties of the Mind", in *Miscellanies in prose and verse* (London, 1711) p. 257.) Again, to contend that a dumper cannot be compelled to remove waste because there is too much of it is a polluters' charter. This is not a case where there are two equally environmentally effective solutions, in which case the cheaper one could apply. The council's "*solution*" is not equally effective.

(xxix) An inference of risk can reasonably be drawn from "*the unknown nature of the very large volume of materials which has been deposited*" (*per* Clarke J. in *O'Regan* at p. 50, para. 30). Insofar as 93% of the waste remains in the ground, a huge quantity of waste has been dumped with only limited sampling to indicate what the nature of the materials are. Thus a similar risk arises to that in *O'Regan*, one which can only be addressed by removal of the waste.

(xxx) The risk arising from the unknown elements of the site is reinforced by the absence of an EIA or an AA. As discussed in Module I, however, it is not so much a question of drawing an inference from the lack of an EIA/AA but of putting that absence in the context of having data on the issue which, for the reasons outlined in this judgment, supports such a conclusion of risk.

The location and nature of the waste and the risk arising therefrom
(xxxi) The waste in Zone C is in regular contact with the prevailing groundwater regime in the sand and gravel, the receptors (groundwater and the SAC) of potential pollution are either directly in contact with the source or very close to it, and the travel times between sources and receptor are relatively very short.

(xxxii) Such direct contact of waste and groundwater is in breach of EU law for reasons discussed in Module I.

(xxxiii) There is non-inert waste in Zone C.

(xxxiv) Non-inert waste has been placed by the council back in in Zone A and non-inert material has been spread on Zones B and C.

(xxxv) The foregoing non-inert material includes hazardous waste. Council submissions describe 3.84 tonnes of hazardous waste in Zone A as "*a trace or negligible amount of hazardous waste*" (para. 11.3). That is a surprising submission seeing as such a volume is about half as much as the 8 tonne volume of waste described by the Supreme Court as "*huge*" in *Hanrahan*. Clearly the council's view of what is a trace amount and the Supreme Court's view are not in sync. The council goes on to submit that there "*would almost certainly be the same for Zone C*". Thus it appears to follow that there are several tonnes of hazardous waste likely to be currently sitting in the ground at that location.

(xxxvi) The remediation involved trommelling hazardous and non-hazardous waste together in breach of EU law.

(xxxvii) A finding of asbestos albeit in small quantity in one of only 8 samples taken by Mr. Byrne indicates real risk notwithstanding the limited (in relative terms) levels of asbestos found in Zone A material by the council. I accept Mr. Byrne's evidence that there is likely to be a lot more, and that residual asbestos could have come out of the trommelling process. The trommelling of hazardous with non-hazardous waste was a flawed procedure that itself has created environmental risk.

(xxxviii) The surface water from the waste deposits discharges directly into the groundwater.

(xxxix) The polluted groundwater is able to migrate through the SAC and into the river.

(xl) The waste gives rise to gas emissions that are of significance where there is a human habitation on site and other habitations in the vicinity. Ms. Dean required hospitalisation as a result of gas inhalation during the council's site inquiries.

(xli) In *Scully*, a Zone A-type solution was rejected by Peart J. (para. 10) because the court could not countenance a less onerous remedy unless it was "*equally effective and satisfactory*". A Zone A trommelled solution which is showing up as non-inert on numerous tests is not "*equally effective and satisfactory*" compared to a solution of removing the waste.

(xlii) The waste in Zone C is in regular contact with the prevailing groundwater regime in the sand and gravel, the receptors (groundwater and the SAC) of potential pollution are either directly in contact with the source or very close to it, and the travel times between sources and receptor are relatively very short.

(xliii) The fines deposited on the surface are highly leachable.

(xliv) The council's submissions conclude in a somewhat qualified manner that "*the empirical data based on testing of the groundwater and Carrigower river shows that environmental pollution is not being caused at present*". But risk of pollution is the issue, not current empirical evidence of current pollution, still less that such current pollution is showing up in the river itself. In any event I prefer the evidence of Brownfield that there is such evidence of current environmental pollution in the air and groundwater.

The non-compliance with EU law and related standards
(xlv) The landfill is not capped in a manner envisaged by the landfill directive and the landfill design manual. Some form of cover membrane is in place in Zone C and material from Zone A has been spread on A and B but these do not constitute the sort of capping envisaged by the legislation or even the more limited capping recommended originally by Mr. Marron.

(xlvi) The landfill is not lined at the sides.

(xlvii) The landfill is not lined at the base in any of the waste zones. The remediation effort by the council resulted in a situation in breach of EU law insofar as the landfill was never equipped with an impermeable "*bottom liner*" as required by Annex I para. 3.1 of the landfill directive.

(xlviii) In particular, given that all waste was excavated from Zone A, the rationale for the failure to put in some sort of effective bottom layer in Zone A when it would presumably (the waste having been removed) have been relatively easy to do so is not apparent.

(xlix) The EPA s. 62 criteria are stringent in relation to the need for a bottom liner, stating at s. 6.1 that "*[t]he lining system protects the surrounding environment including soil, groundwater and surface water by containing leachate generated within the landfill, controlling ingress of groundwater and assisting in the control of the migration of landfill gas*". The lining systems required for hazardous waste landfills are elaborate (p. 27 of the criteria, fig. 6.1(A)) involving protection layers if required, a leachate collection system, a flexible membrane liner and a mineral layer of specified thickness. The extra layers are also required in non-hazardous biodegradable waste landfills. Even in an inert waste landfill, 1m of mineral layer is required between waste and subgrade, which by definition must be above the groundwater (otherwise the "*lining system*" would not function as specified in the s. 62 criteria and the purpose of the protections would be defeated).

(l) There is no leachate collection system.

(li) The gas collection system is not in accordance with paras. 4.1 and 4.2 of Annex 1 of the landfill directive. While Mr. Marron initially denied in cross-examination that the level of non-inert waste was such that gas collection was required, in his report he recommended gas venting in Zone B. Confronted with this he retracted his previous position.

(lii) The remediation effort also failed to remedy the breach of EU law in terms of direct contact of waste with groundwater contrary to art. 4(1)(b) and 11(3)(j) of the water framework directive and art. 6(1) of the groundwater directive. This breach of EU law in itself in my view creates an unacceptable degree of environmental risk.

(liii) Art. 18 of Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste prohibits mixing of hazardous and non-hazardous waste (or with other forms of hazardous waste) as does art. 6(b) of landfill directive of 1999. This breach of EU law during the trommelling process in my view creates an unacceptable degree of environmental risk that remains because the trommelled material is currently covering the site.

The flawed nature of the council's methodology
(liv) The executive decision to allow as much waste as possible to remain on site preceded the finalisation of the risk assessment. This is a fundamentally flawed approach and contaminates the whole approach taken by the council. It is a policy-driven and apparently cost-driven conclusion that preceded and skewed the objectivity of much of the subsequent science.

(lv) WYG and Komex initially designated the site as high risk, a designation removed only when the receptor of the nearby house and well was removed, at the urging of the client rather than on a dispassionate scientific basis.

(lvi) The adjustment and amendment of the risk assessment by council officials rather than having a science-driven

approach undermines the validity of the council's methodology.

(lvii) The council's methodology was expedient and elastic, failing to be guided by initial WAC testing and ultimately taking refuge in its own bespoke standards which conveniently it passed. It remained in some disarray up to the end of the case as to on what basis the testing could have complied with WAC standards. I am satisfied that multiple samples from the trommelled material used in Zone A and as a cover in B and C were non-inert on WAC criteria.

(lviii) The "*safeguard*" of the TWG was illusory; the EPA incorrectly stated that its code had been complied with, fundamentally misunderstood its role in relying on the absence of conclusive evidence of risk and failed to apply the precautionary principle, as did the TWG and the council.

(lix) The council's flawed methodology is demonstrated by the reliance placed on BH 14-01 to 14-05 which did not find such contact in Zone C. But the value results from investigations will depend on the parameters including location of those investigations. If one looks at the location of BH 14-01 to 14-05 on Mouchel Figure 2 Rev B, all are outside the area hatched in green as being the "*area where highest groundwater intercepts waste*". Thus the choice of borehole location outside that hatched green area means that one cannot draw the conclusion from such borehole results that there is limited contact with the groundwater within the green area.

(lx) Nor does it follow from the consistency of results in BH 14-01 to 14-05 that results in L4TP3 should be regarded as unreliable. The approach of disregarding inconvenient data as outliers is not in accordance with the EU law principles of a high level of protection, or of precaution, or with an entirely objective approach.

(lxi) The council's methodology failed to properly investigate the whole site, for example the North-Western corner.

(lxii) Compliance points chosen were inappropriate and undermined the conclusions drawn from consequent tests. The UK Environmental Agency guidance indicates that the compliance point should be set as the base of the waste (para. 24).

(lxiii) Mr. Marron accepted that the thrust of the remediation carried out was to reduce the risk rather than eliminate it. Given that the council accepts an environmental risk was there at the outset, the fact that its own expert is saying that the remediation was to reduce rather than eliminate the risk means that it follows that the risk continues to exist at some level.

(lxiv) WYG and Mouchel's methodology was also flawed for the further reasons set out elsewhere in this judgment.

The need for effective enforcement action as emphasised by the CJEU and central government
(lxv) A robust approach to enforcement is reinforced by the letter from the Department of the Environment, Heritage and Local Government (now the Department of Communications, Climate Action and Environment) to the Judicial Studies Institute on 28th October, 2010, suggesting that there was a perception of "*a weakness in the efficacy of enforcement actions*" and "*[a] lack of awareness on the part of the Court system of the need to ensure outcomes required by the ECJ ruling [in Case C-494/01 Commission v. Ireland EU:C:2005:250 [2005] ECR-I 3331] within a reasonable time*". Such an approach reinforces the need for a robust and precautionary approach in the face of considerable and valid concerns as to actual or potential pollution from the vast body of waste at issue in this case.

283. Most of these reasons are independent of each other but taken together they compellingly point to a mutually-reinforcing conclusion, namely that there is an environmental risk arising from the current state of the site. The jurisdictional prerequisites for grant of a statutory injunction under s. 58 thus exist on this ground, and as determined in Module I, those prerequisites also exist on the separate ground of the council having engaged in dumping causing a breach of the licensing requirements. There is also a third ground on which such an order might be granted, namely whether the council's possession of the waste has now moved into being of a long-term nature, and thus a licence is required.

Is the council disposing of waste by means of long-term storage, in breach of the licensing requirements?
284. The EPA code of practice states (p. 2, fig. 1) that a site must have "*appropriate authorisation*" which presumably means that it requires a licence or, in the case of a council closed landfill, an authorisation such as those granted under the 2008 regulations.

285. It goes on to state at p. 5 that "*the local authority shall ensure that the holder of the waste … [w]here appropriate make[s] application for a permit or licence to the relevant local authority or the Agency which will determine the actions required by the holder to remediate and manage the site into the future*".

286. The first ministerial direction states that "*[w]here it is deemed appropriate to leave waste in situ the holder of the waste shall … make application for a permit or licence to the relevant local authority or the Agency…*". It is noted that other aspects to be examined when considering leaving the waste *in situ* include a high likelihood of a licence being granted, the waste being non-hazardous, inert or unpolluted soil and low risk, or disadvantages in removal where there are no environmentally sustainable alternatives. These considerations do not apply here because the EPA already indicated (Mr. Carty's Garda statement) that a waste licence would not be granted; the retention was an executive decision prior to completion of the risk assessment, to which the science was added on, and not on the basis of an assessment that there are no environmentally sustainable alternatives; given that 93% of the waste remains *in situ* it would not be possible to come to the view that all that is there is non-hazardous waste, inert waste and unpolluted soil. The council accepts that (at least isolated) hazardous waste continues in Zone C.

287. The second ministerial direction states (section 3) that "*cessation and the leaving of illegal waste unregulated are not acceptable, the policy direction contained in Circular WIR: 04/05 of 3 May 2005 details what is expected in this regard*".

288. Mr. Bland submits that the assumption is that all holders must apply for a licence and that the EPA's method of requiring removal of waste is not to refuse the licence but to grant it with a condition that the applicant remove all waste.

289. Mr. Connolly accepts that long-term storage of waste constitutes disposal of waste. Under s. 39, disposal of waste requires a licence. The logic of that is that all landfills should be brought into the licensing system.

290. It was agreed that broadly there were four categories of landfill -

(i) "Section 22" landfills – former closed historic unregulated waste disposal sites (closed landfills) of which there are around 285 (1977-97) – these are recorded under s. 22 of the Act but not licensed, plus 64 pre-1977 local authority

sites;

(ii) Licensed modern landfills (of which there are 6 – 3 local authority and 3 private) – these are not on the s. 22 register;

(iii) Around 37 closed illegal landfills of which this is one; and

(iv) Closed sites which were formerly licensed and are now full (around 61 of them being council sites). It was understood that the licences here imposed post-closing conditions; and 107 closed private (legal) sites that were licensed since 1980 or closed by that date.

291. Category (ii) and most of (iv) already have licenses albeit in the case of (iv) we are talking about licences with run-off provisions post-closure.

292. As regards category (i), S.I. No. 534 of 2008, the Waste Management (Certification of Historic Unlicenced Waste Disposal and Recovery Activity) Regulations 2008 provide a mechanism to deal with municipal dumps by way of authorisation from the EPA. The authorisation is not dependent on proof of compliance with EU law. Oddly the 2008 regulations do not exclude the application of s. 39 of the Act but that presumably was the intention – an authorisation is instead of, rather than an additional requirement to, a licence.

293. As regards category (iii) of which this is one, the logic of s. 39 is that a licence is required for the long-term storage that is envisaged by the Act. Regulation 37 of S.I. No. 133 of 1997 - Waste Management (Licensing) Regulations, 1997 requires that "*The Agency shall attach to any waste licence that may be granted by it such conditions as are, in the opinion of the Agency, necessary to give effect to the provisions, specified in column (1) of the Second Schedule, of the Community acts specified correspondingly in column (2) of the Schedule, in so far as such provisions are relevant to the waste recovery or disposal activity concerned*." Thus subjecting illegal dumps to the licensing regime would have the effect of imposing EU law requirements on such dumps. It seems to me that closed private illegal sites are subject to licensing requirements due to the long term storage involved and that the EPA licensing process generally would require conditions that comply with EU law. It would be a matter for the EPA to ensure that its statutory licensing responsibilities are effectively enforced, and for the courts if that is not done.

294. The question arises as to who should apply for the licence. In a special case as here where the council's entry is under s. 56, the council becomes required to apply for the licence once it is engaged in long-term storage as discussed in the No. 2 judgment. Section 5(3) of the Act defines "*temporary storage*" as storage for not more than 6 months. Article 2(g) of the landfill directive defines a "*permanent site*" as one held for "*more than one year*". The fact that the council intends to keep possession only until the site is safe does not mean that the council's possession is not long-term. Long-term in this context applies once we have gone beyond the 6 to 12 month period, even if the original entry was emergency remediation, as long as there is no immediate prospect of returning the site to the legal owner. A two-year entry to remediate does not necessarily amount to long-term holding if there is a visible prospect of possession of the lands being returned to the owner. But where, as here, we are looking at possession without a discernable end in view, then even though the entry was to remediate, it seems to me to necessarily involve long-term holding.

295. The council has engaged in purported remediation of an illegal private landfill in the exercise of its statutory powers. That *in itself* does not make it the manager or operator of the landfill or confer on it the licensing and related functions of the owners of the landfill (as discussed in Module I), but matters change if its exclusive possession of the site becomes of a long-term nature. One significant development which took place since Module I is that the council now accepts that it is not going to hand back the site to Brownfield as is unless or until a licence to hold the waste is granted. That development appears to me to mean that a line is being crossed from temporary possession to long-term, such that the site is now being managed by the council. There is literally no end in sight to the council's possession. Contrary to what was said to O'Keeffe J., Brownfield are not going to get back a remediated site; unless either I require removal of all waste, or the EPA were to capriciously U-turn and given Brownfield a licence to hold the waste, having up to now required complete removal.

296. Mr. Connolly submits that the statutory obligation was always there, and that may be so, but the fact that the council's previous position (including its submission to the court on the basis of which an adjournment mid-hearing was secured) did not take this into account seriously changes the context. If the court had been told – "we want an adjournment after 23 days of hearing to remove 7% of the waste but, by the way, Brownfield will not be getting this site back in currently foreseeable circumstances if we conduct the bonsai remediation as opposed to removing everything" - a fundamentally different question would have been presented for the court's consideration. Certainly any hope that the bonsai remediation could resolve or even shorten matters would have been blown out of the water. Given the absence of any visible prospect of Brownfield being able to resume possession it seems to me that the council's occupation at this stage is now of a long term nature.

297. The approach that illegal sites should come into the licensing system is supported by the EPA code of practice which says that the local authority shall "*ensure*" that the holder of the waste shall "*[w]here appropriate make application for a permit or licence to the relevant local authority or the Agency*" (p. 5). What is meant by "*[w]here appropriate*" is not explained but in context, and in any event on the interpretation I am adopting, it would be appropriate where long-term storage of the waste is involved, that is where the waste is not being removed. Removal would be likely in any event following the required remediation which beings from the premise, set out in the code of practice, that "*it is to be assumed that the waste shall be removed from the site except only where it can be shown that an alternative solution provides greater protection to the environment and the health of the local population … the only circumstance where waste can remain on the site is where it can be clearly demonstrated that this will lead to greater protection of the environment or enhancement of the environment and greater protection of the health of the local population*" (p. 52).

298. The upshot is that while the code of practice would in the circumstances (especially given the sensitivity of the site) presumptively require removal of the waste, if any waste was to be retained, a licence would be required. That has not been done and again in this respect a breach of the code and of primary law arises.

299. Thus even if I am wrong in the conclusion that there is environmental risk at present, I have jurisdiction to make an order under s. 58 against the council because (a) as found in Module I, a contravention of s. 39 has been occasioned; and/or (b) contrary to what was represented to O'Keeffe J., the council are not in a position to give the site back to Brownfield (barring full remediation or events which are unlikely to occur); thus they are holding the waste in a long-term capacity and are doing so without a licence.

300. Mr. Connolly submits that the previous dumping issue is moot because of the remediation. But that is not so. The council's previous dumped material could be anywhere on the site (including Zone D) and all other things being equal, given that 93% of the previous wastes are still on site, it is reasonable to assume that 93% of the material illegally dumped by the council is still on site. Even if the remediation had achieved its goals, those goals did not include removal of all waste and thus the licensing issue persists.

301. The council replying submissions state rather cryptically and perhaps with some understatement that "*Long-term authorisation of the waste storage at the Whitestown site was not [a] priority of the council intervention, but the council accepts that this needs to be addressed over the medium to long term, as described in the EPA code of practice and will be driven by EPA requirements (e.g. for long term water monitoring)".* But 16 years on from the council getting statutorily involved with this site, the long-term has now arrived. Authorisation of the waste storage is a legal requirement. That requirement does not seem to have been activated by voluntary submission, so if it is to be effective, it must now be implemented by court order.

What order is appropriate in the light of the foregoing?
302. Mr. Connolly submits that the court has a range of options and needless to say urges me to impose the least rigorous option on the council if I am going down the route of making any order. The options he canvassed are as follows:

(i) A first option is that of requiring further investigation. Such a decision would be a cop-out at this stage and would only set the scene for a further round of litigation. More fundamentally, no matter what the situation, further testing can always be suggested in any such case. The council in the sister case of *Fenton* successfully argued against the submission that further testing was an answer there (pp. 69-70). In the present case a further round of investigation would be a fool's errand. It would not alter the nature of the risk arising from the fixed characteristics of the site. The cry of "*no remediation without further testing*" is simply another clause of the polluters' charter.

(ii) A second option is to deal with concerns by means of a declaration that there has been a holding of waste giving rise to a risk. Mr. Connolly accepted that such a declaration "*doesn't really*" advance the objectives of the Act although it might assist Brownfield in terms of costs and would be a signal to Brownfield and the EPA for heightened vigilance and would provide comfort to the community. To my mind a declaration would be a hollow exercise and would provide cold comfort at best. Remedies must be effective, in accordance with art. 13 of the European Convention on Human Rights and art. 47 of the EU Charter of Fundamental Rights (reinforced at international level by art. 2 of the International Covenant on Civil and Political Rights), and is also a right which is so essential to the rule of law that it should be regarded as an unenumerated right under Article 40.3 of the Constitution. To grant a mere declaration in the face of a vast and illegal body of waste causing environmental pollution would be a failure to afford an effective remedy. As with children and animals (*Sfar v. Minister for Agriculture, Food & the Marine* [2016] IEHC 165, para. 13; *Sfar v. Minister for Agriculture* [2016] IEHC 348 (Twomey J.) para. 39), the environment depends on others for its protection. It is immaterial whether Brownfield Restoration Ireland Ltd. is motivated by a wish to be a champion of environmental rights or is protecting its own investment in the lands; either way it is entitled to an effective remedy for the environmental risk that has been established. Mr. Connolly is uncomfortably driven to rely on *Wicklow Co. Council v. Fortune (No. 4)* [2014] IEHC 267 as a precedent in this regard; but if anything the (in my very respectful view, inappropriate) approach taken in that unhappy case well demonstrates why a declaration is a relatively meaningless and ineffective alternative to a mandatory order (see views of Kearns P. in *Wicklow Co. Council v. Kinsella* [2015] IEHC 229 and of McKechnie J. in *Murray*; see also my judgment in *O'Mahony Developments Ltd. v. An Bord Pleanála* [2015] IEHC 757 para. 40.)

(iii) A third option would be to direct that if there is to be continued holding of waste on the site, it should be done under licence from the EPA (or with consultation with the EPA). As to whether an order under this heading would direct the council to remove waste unless a licence was granted, Mr. Connolly suggested that the appropriate order would be to restrict the council from holding the waste save under and in accordance with a licence, but said that if he was refused a licence then it would have to be removed. So this aspect is a semantic issue and it would just be clearer to direct removal. However here, there is no need to require the opinion of the EPA because in terms of their formal process they have already opined on this matter and directed removal of all waste. It would be attributing a huge degree of irrationality and caprice to the EPA to consider that it is likely that they would come to a different conclusion just because it might be a different applicant for permission to retain this waste. Furthermore, had the issue of sending the matter to the EPA been volunteered on day 1, it might have had slightly more attraction, but we have now been through a process that is considerably more detailed than the desk exercise that the EPA would conduct because we have had 52 days on which the case has been before me including cross-examination of experts on both sides and extensive oral and written submissions. Sending the matter off to the EPA now would negate the hearing already undertaken and I am not satisfied that it would result in a better decision in the circumstances.

(iv) As a sub-option of the foregoing, Mr. Connolly suggested that the risk element of pollution being caused by removal of waste militated in favour of sending that issue in particular to the EPA. If he is right about that aspect, it is perfectly possible to build in the EPA's perspective in Module III prior to making any mandatory order. That concern does not require involvement of the EPA in an administrative process external to the proceedings.

(v) A further option would be the carrying out of limited works rather than full remediation. It is certainly true that the site could be improved by more limited works – obviously the less waste on site and the more engineered the landfill the better. But the goal is not just to make improvements – it is to remove the risk of environmental pollution. The council submits that its remediation has "*resulted in a significant improvement when compared to the situation when it entered on the site*". That may be so comparing the bottom line now with that originally, although aspects of the council's activity (particularly trommelling Zone A hazardous and non-hazardous waste together and spreading the result on B and C) have themselves caused pollution. But the objective is not to improve the situation – such an approach would be contrary to the polluter pays principle. Modest improvements naturally appeal to the pragmatic, reasonable and compromising side of the lawyer's mind, such as it is; insofar as that tendency seeks to split the difference and find a mediated path through the chaos, especially through a situation as chaotic as that presented here. But I have reluctantly come to the view that that would be an abdication of the role thrust on the court by EU environmental law because elements of environmental risk would remain for the reasons set out above. The nature of the risk concerned, as set out above, is such that it is not realistically possible to address the risk otherwise than by the removal of all waste on the site. While some small and isolated elements of the risks could be reduced by limited further works, if one looks at the situation overall it is clear that larger and broader factors at work (such as the nature of the site, the lack of appropriate engineering, the nature and volume of the waste, and so on) are such that full removal is the only realistic way to prevent the risk to the environment that is involved.

(vi) A further option would be to require all waste to be removed pending installation of a fully engineered landfill, following which the waste could be re-installed. There are a number of difficulties with that. Firstly, the site is fundamentally unsuitable for a landfill, notwithstanding the notion that with considerable engineering, risks could be mitigated. Constructing the engineering solution may be more expensive than simply removing the waste and disposing of it at a landfill – Prof. Johnston certainly thought so and I would accept that evidence. Such a solution does not deal with gas emissions on a site with a house present and with other houses in the vicinity. Furthermore, retaining waste on site would

not address the licensing problem. To allow waste to be held long-term on site without a licence would legitimate a breach of the Act.

(vii) The alternative is removal of all illegal waste – that is, all of the waste, because it is all illegal - from the site. As an order would be enforceable by criminal contempt Mr. Connolly submits that there would have to be a carefully drafted order which may require further evidence and a series of future motions where the court would provide oversight in relation to the adequacy of the works in terms of a technical debate between experts. He submitted that such an order is the sort of mandatory order that could be insufficiently precise, relying on *Co-operative Insurance Society Ltd. v. Argyll Stores (Holdings) Ltd.* [1998] A.C. 1 at p.12 *per* Lord Hoffmann who expressed concerns about situations calling for "*an indefinite series of ... rulings in order to ensure the execution of the order*". Such considerations are however "*merely a discretionary matter to be taken into account*" rather than necessarily determinative (p. 14, citing Ian Spry, *Equitable Remedies*, 4th ed., (London, 1990), p. 112). Again, this is something of a polluter's argument. Do not require us to remove the waste as it will involve the court having to supervise. Once more, the council would have had little to celebrate in the *Fenton* case if such an approach was followed. What might be called an "objection of detailed supervision" is not an answer, for a number of reasons. Firstly the rule of law and in this particular context the need for protection of the environment supersedes any such considerations. Secondly I do not think that this case is going to require an indefinite series of further rulings; in fact it should be possible to provide a pathway to remediation that is practicable and that can be achieved within a reasonable timescale. It should be possible to build in any flexibility that is appropriate and to give liberty to apply in the event of any unforeseen slippages from timescales. Thirdly, in any event, given that we have the benefit of an EPA licence requiring removal of all of the waste, this problem does not necessarily arise here as there is already something of a draft pathway to full remediation, although of course that is subject to submissions as to whether and to what extent that particular pathway should be followed.

(viii) A sub-option of the foregoing would be to allow inert wastes to be returned to the site following removal of all waste currently present. While there was probably agreement in principle that landscaping could be done with inert materials, agreement in practice about whether inert materials can be extracted from what is there at present is likely to be elusive. The concept of allowing the waste to be sorted further so that inert waste can be reinstated is not attractive given firstly that the effort to do this on the previous occasion was hugely controversial and unsuccessful, and secondly given the council expert Mr. Marron's evidence that in the context of a private polluter, given the sensitivity of the site, even inert wastes would normally be removed, evidence which I accept (QQ.62-65). It seems more appropriate therefore for any inert materials to be obtained from a non-contentious external source.

303. Mr. Connolly relies on a proportionality argument, relying on *O'Regan* at p. 53 para. 43, that "*there should be some reasonable proportion between the burden placed upon the respondent and the good to be achieved… [t]he court should attempt to impose the least onerous order… which will, nonetheless, secure the objectives of the Act*". Mr. Connolly submits it is disproportionate to require a public authority to spend millions of euros to remove all waste when it has not been demonstrated that all aspects of the site require removal. However it has been demonstrated that removal is necessary to obviate the risk. I deal with the cost issue further below.

304. The cool reception given in subsequent caselaw to the decision in *Fortune* should demonstrate, if such demonstration were necessary, that arguments from discretion are not without limit.

305. First of all, it is conventional law that no discretion arises as to whether EU law should be effectively implemented. There can be a discretion as to the means chosen but not as to achieving the result. The discretion issue thus is not necessarily hugely relevant here although assuming *arguendo* that all discretionary matters can be taken into account I have had regard to all factors that might lean in favour of declining to order full remediation. But any such factors are outweighed by the need to enforce EU environmental law, to remediate this huge illegal dump, to ensure that the polluter (in the form of the council as a dumper) will pay, and to ensure a high level of environmental protection.

306. In *Murray*, McKechnie J. quoted with apparent approval the views of Charleton J. in *Wicklow County Council v. Forest Fencing Ltd* [2007] I.E.H.C. 242 at para. 49. "*A similar principle [that a declaration should be made if a default permission arises] … should apply in the opposite circumstances, such as here, where the Court has found that there is no default permission: where the developer has, on the contrary, developed the site entirely in accordance with his own wishes and with little or no reference even to the plans in respect of which he once sought permission.* The discretion of the Court, in this context, is very limited. The balancing of that discretion must start with the duty of the court to uphold the principle of proper planning for developments under clear statutory rules. Then, the Court should ask what might allow the consideration of the exercise of its discretion in favour of not granting injunctive relief." (The last three sentences are underlined in McKechnie J.'s judgment). And at para. 50: "*To fail to grant injunctive relief in these circumstances, on these facts, would be to cause a situation to occur where the Court is effectively taking the place of the planning authority. The Court should not do that. This is a major development, for which there is no planning permission. It is in material contravention of the County Wicklow Development Plan. It is built entirely to suit the developer and with almost no reference to legal constraint. I am obliged to decide in favour of the injunctive relief sought*."

307. The EU Charter-level commitment to a high level of environmental protection, and the implied constitutional commitment to intergenerational solidarity (reflected e.g., in Article 42A.1, 45.4.1° and 2°) militates against such a lax and forgiving approach to fundamental issues of stewardship of the environment in trust for future generations. Vigilant and effective protection of the environment is an implied constitutional obligation, to be laid at the door of private parties as well as the State. It is also an express obligation under International, EU and national legal provisions.

308. If I am wrong about that, I would accept Mr. Bland's submission that the onus shifts to the council to show exceptional circumstances as to why such an order should not be made. By analogy with the jurisdiction to enjoin planning breaches, "*[i]t would require exceptional circumstances … before the court should refrain from making whatever order … as is 'necessary to ensure that the development is carried out in conformity with the permission'*": *Morris v. Garvey* [1983] I.R. 319 at p. 324 *per* Henchy J.. In *Dublin City Council v. Eircom plc.* [2002] 3 I.R. 327 it was held that once unauthorised development is established, the respondent bears the onus of showing that any discretion should be exercised in his favour (p. 330, *per* Carroll J.) (See also *Cork County Council v. O'Regan* [2009] 3 I.R. 39). Mr. Connolly submits that the planning code is not a complete model for an analogy to be drawn with s. 58.

309. If I am wrong about all of the foregoing and even if the council does not have to show exceptional circumstances as to why the order should not be made, it seems to me that even on that premise it is appropriate to grant relief under s. 58 taking all of the factors discussed in this judgment into account.

310. To fail to order remediation of a landmark site would be to seriously inhibit the effectiveness of EU environmental law. It would substantially weaken the deterrence for deter future illegal dumping. Aside from possible exceptional circumstances which do not apply here and thus need not detain us, polluters generally need to know that they will be required to provide full remediation, and to pay for it in full. Any other message would seriously undermine the public interest as well as undermining the effectiveness of the implementation of EU law.

311. Given the wide scale of council dumping and the long period over which it has progressed, and the council's dilatoriness in pursuing effectively the other polluters such that it is now not in a position to do so, it is not disproportionate to require the council to remediate the site.

312. Furthermore, having regard to the polluter pays principle as interpreted in *Fenton*, it would not be disproportionate to visit the council with the cost of remediation even though there were other polluters involved (which as noted the council have not sought to make liable).

313. Even if I am wrong about that and in some way it would otherwise be disproportionate to visit the remediation on the council, one must bear in mind that the council are the relevant emanation of the State through which there is an ultimate responsibility to comply with EU law. Thus there is no disproportionality given the ultimate duty on the State and its relevant emanations, in accordance with the direct effect of the EU legalisation concerned, to ensure that illegal dumps are cleaned up, as the Court of Justice of the EU has put it in the caselaw cited in Module I.

314. Mr. Connolly argues that the risk is unspecified and may not occur for decades, if at all. That is not really a proportionality argument. If a risk is there, arising from the presence of vast quantities of illegal waste on a highly vulnerable site, I am not too concerned about precisely where or when the pollution is going to show up in receptors. The issue is whether there is a risk of such pollution showing up and if so, such measures as are necessary to remove it should be taken.

315. The submission that an order is disproportionate because it would be costly to implement is close to a submission to the effect that the court should order remediation except where there is a lot of waste (because such remediation would therefore cost a lot of money). On that logic only small or modest dumps would require full remediation. That would be a perverse approach; one that would be familiar to Dean Swift. On the contrary, the more waste there is, the more important that it is removed. The cost is a consequence; it is not a reason not to order removal – if anything it is a heuristic that is positively associated with a need for full remediation.

316. Mr. Connolly submits that the application is unprecedented and novel in that no application has been made under s. 58 in relation to any s. 56 works. There have only been two invocations of s. 56 anyway, one by the EPA on a site in Co. Kildare, this being the only other one. He refers to a "*chilling effect*" but s. 56 seems well chilled already and does not seem to be being used. Anyhow, as long as remediation is not botched and is carried out in accordance with the code of practice, one should not fear too much from s. 58.

317. But the main basis of any order against the council is not primarily the environmental risk caused by its botched remediation (although that is a subsidiary part of it given the multiple breaches of EU law and of the code of practice involved in the purported remediation); the order primarily goes back to its role *qua* dumper. The council was only one of a number of dumpers but for whatever reason the council has not sought to pursue the others. In particular, it abandoned the attempt to impose personal liability on the directors of the corporate dumpers despite some supportive authority. Those are matters outside of my control and essentially the council *qua* dumper is the only one left standing. That it finds itself carrying the can is down to its own strategic choices at various points in this litigation, including a somewhat relaxed approach to progressing to finality proceedings that were instituted 12 years ago.

318. Mr. Connolly made a point that Brownfield could have acted earlier. He says that Brownfield complained about the works at an early stage and did not press their litigation until some years later. But Brownfield's proceedings pre-dated the works, being initiated in 2008. It is open to them (especially given the summary nature of the proceedings as envisaged by statute) to update their complaints prior to the hearing date having regard to developments since then, and that is what they did. I do not think that their failure to press the issue earlier (especially given the fact that the council secured a contested adjournment of the proceedings) undermines the credibility of the action.

319. He suggested that the court can take comfort from a presumption that the council will act properly. As I found in Module I any such presumption (which I would not accept) has been well rebutted. That conclusion is substantially reinforced by the findings in this module. In particular the lack of full implementation of the presumption in the EPA code of practice offers little to take comfort from.

320. I do not accept that discretion in this case insofar as it exists could properly be exercised against making an order. Given that we are talking here about the effective enforcement of EU law, the court's discretion is not at large. There may be a discretion as to the means to be achieved to enforce EU law but not a discretion as to whether it should be enforced. But even assuming *arguendo* that discretion arises, and taking all points made by the council into account, the balance of justice, convenience and the public interest and the principles of environmental protection lean against exercising any such discretion. Thus an order for remediation must be made.

Order

321. For the reasons set out above, subject to any refinement on points of detail that may arise from Module III, the council will be required to remove to a licensed waste disposal facility all waste (and all soil or other materials contaminated or potentially contaminated by such waste) from all areas of the site including areas that are already the subject of attempted remediation, and to appropriately fill and landscape the site with inert matter sourced elsewhere, prior to handing back possession and control of the site to Brownfield by a date to be specified. It would be illogical and inappropriate not to include the contaminated soil in such an order, which the council itself originally insisted on having removed, quantified at 1m tonnes.

322. Having regard to the matters set out in this judgment, the formal order that I will make at this stage is as follows:

> (i) that the hearing proceed forthwith to Module III on the basis of the findings set out in this judgment; which will be a hearing of remaining issues in the 2008 proceedings (specifically the precise terms of the order to be made having regard to issues 7 and 10) as well as the issue of costs in the 2005 proceedings;
>
> (ii) that the parties prepare initial draft timetables for the steps to be taken to implement the required works as set out in

this judgment, such initial draft timetables to be presented to the court on Tuesday 11th July, 2017, when the hearing of Module III will commence;

(iii) that such initial timetables include provision based on the parties' views on what steps if any should be specified by order including but not limited to such terms if any as might be appropriate as to:

(a) an EIA/AA process,

(b) EPA licensing of the removal activity,

(c) possible incorporation of provisions of the existing licence *mutatis mutandis*, in particular the provision that the restoration of the site is to be completed within 3 years (condition 1.11) and/or provisions for pre-removal measures (at 3.19),

(d) engagement of consultants / contractors to assist in or carry out any necessary steps; and

(iv) insofar as the parties consider that submissions should be specifically invited from the EPA on Module III issues, that the parties will be required to notify the EPA of the issues on which they consider such views would assist, in advance of the resumed hearing date.