



OUTER HOUSE, COURT OF SESSION

[2020] CSOH 55

A39/17

OPINION OF LORD WOOLMAN

In the cause

WILLIAM MACBEAN

Pursuer

against

SCOTTISH WATER

Defender

**Pursuer: Smith QC, Young; TC Young LLP
Defender: McBrearty QC, Pugh; BLM**

29 May 2020

Introduction

[1] William MacBean lives in a large house in Boat of Garten. A waste water treatment plant ('WWTP') sits down an embankment from his property. It discharges into the River Spey. When it began operating in 2015, Mr MacBean noticed noxious fumes in his garden. Sometimes they reached his house. He and other residents complained to the WWTP operator, Scottish Water. As matters did not improve, Mr MacBean raised this action in 2017. He seeks a declarator of nuisance, together with interdict and damages.

[2] I have now heard evidence on four separate occasions. The proof commenced in November 2018, was adjourned until January 2019 and adjourned again until March 2020. Shortly before the last hearing, I took the evidence of three experts on commission.

[3] I adjourned the first two hearings at the joint request of the parties. Each time they wished to try to find a practical solution. Unfortunately their attempts were unsuccessful.

[4] A significant development occurred at the close of the second hearing. At the parties' joint invitation I granted decree of declarator that Scottish Water was causing a nuisance to Mr MacBean. I did not grant interdict, because the parties also agreed that Scottish Water should have a further opportunity to remedy matters.

[5] During 2019 Scottish Water carried out remedial works. It also instructed two independent companies to conduct smell assessments in and around the WWTP. Further it set up a dedicated complaints helpline.

[6] Fortified by the findings of the smell assessors, Scottish Water believes that it has now cured the odour problem. Mr MacBean disagrees. He contends that the nuisance continues. It was on that basis that the proof resumed in March 2020.

[7] Mr MacBean recognises that interdict would have major consequences. The closure of the WWTP would deprive the community of an important public service. Mr Smith addressed this point in his closing submissions. He invited me to pronounce a further declarator of continuing nuisance, rather than interdict. That invitation was subject to Scottish Water undertaking to remove the nuisance within a reasonable time. Mr Smith suggested it could do so, either by building a new plant, or by transporting the sewage to another plant for treatment.

The issue

[8] What constitutes an actionable nuisance? Lord President Cooper formulated the classic test in *Watt v Jamieson* 1954 SC 56, 58:

“The critical question is whether what [the pursuer] was exposed to was *plus quam tolerabile* when due weight has been given to all the surrounding circumstances of the offensive conduct and its effects.”

[9] Here that can be refined into two narrower questions. First, do odours from the WWTP still come on to Mr MacBean’s land? That is a simple issue of fact. Secondly, would a reasonable person tolerate them? The answer to this second question involves a more complex inquiry. It involves an objective evaluation of the nature, intensity and duration of any such smells having regard to the overall context.

[10] Mr MacBean, supported by friends, neighbours and two experts, maintains that his property is still subject to objectionable smells from the plant. Scottish Water rejects that contention. It submits that any smells now emitted by the plant are faint, transient and localised. It founds on the independent smell assessment records. It also calls attention to the public utility of the plant and the adverse consequences of requiring it to cease operation. It argues that, giving due weight to all those factors, any odours are reasonably tolerable.

[11] I shall flag up at the outset a difficulty that the testimony presents in this case. There are two conflicting bodies of evidence. Neither side challenges the credibility of the other’s witnesses. Mr Smith did not challenge the reliability of the defender’s witnesses. By contrast Mr McBrearty did challenge the reliability of the pursuer’s factual witnesses. I shall discuss the intertwined concepts of reliability, weight and cogency later in this opinion.

Background

Mr MacBean

[12] Mr MacBean is now aged 70, does not smoke or drink, and believes that he has a good sense of smell. He has lived in and around Boat of Garten all of his life. In 1988 he purchased Tomboyach House ('Tomboyach'). As well as being his residence, it has been the centre of his various business operations. He loves his house and would not contemplate a move.

[13] Mr MacBean has a daily walk around the garden with his dog. He takes a keen interest in the WWTP and often has friendly chats with Scottish Water employees and others working at the site. Although he denies that the odour problem dominates his thoughts, others think differently. Maureen Hendry, who has worked with him since 1975, thinks that he finds it very stressful. A friend, Ian MacLeod, holds a similar view, "it's something that is consuming his life".

Planning permission

[14] The former sewage works for Boat of Garten were located 50m further away from Tomboyach. They did not cause Mr MacBean any problems. In 2010 Scottish Water applied for planning permission to construct a new plant. Its application contained a misrepresentation. It stated that the new works "will not create any odours and will therefore not impact on any sensitive receptors". Scottish Water now concedes that it should never have made that statement. One expert in the case, Stephen Peirson, said that if he had been asked about it at the time, he would have said "don't believe it". All sewage works give rise to some odours.

[15] Bob Murdoch is an employee of Highland Council. He has worked in its environmental health department for many years. He did not accept Scottish Water's assertion at the time. He was sufficiently concerned about the proximity of the proposed plant to housing to ask for an odour management plan during the planning process. The Cairngorms National Park Authority ('CNPA') appears to have taken heed of his view. In granting permission in February 2011, it imposed this condition:

"3. No development shall commence until an Odour Management Plan has been submitted to and agreed by the CNPA acting as Planning Authority, in conjunction with Highland Council Environmental Health. Thereafter the odour control measures set out in the Odour Management Plan shall be implemented prior to the [works] becoming operational and adhered to at all times thereafter.

Reason: In the interest of residential amenity; to ensure the emissions of odours is controlled."

[16] Scottish Water did produce an odour management plan, which it has since revised several times. The original plan contained two errors. It said that Tomboyach was 70m, rather than the true distance of 17m, away from the WWTP. It also stated that there were "no significant odour-generating locations at the site".

Layout & process

[17] Waste water treatment works are essentially about decontamination. The sewage is treated, the dirty sediment is removed, and the cleaned water discharged. Two main treatment processes take place within this WWTP.

- (1) The sewage enters one of four large septic tanks, where bacteria consume the raw sewage. This anaerobic process results in (i) the release of gases and (ii) the settling of solids at the bottom of the tanks. Some of the gases are contained because a crust forms above the solids.

(2) An aerobic process takes place in the submerged aerated filter units ('the SAF'), which also produces gases and sediment. The latter is pumped back to the septic tanks.

[18] That description puts matters at their simplest. Other processes take place within the plant, where extensive piping connects humus tanks, an inlet cover, a splitter chamber and an intermediate pumping station.

[19] Tanker lorries remove all the sludge from the bottom of the septic tanks and transport it to Aviemore. This 'desludging' takes place every 4 to 6 weeks, each tank in rotation. The operation lasts between 1 and 4 hours.

Early complaints

[20] When the plant began operating, local residents noticed odours. Mr MacBean described it as a "stink". From 15 June 2015 onwards, he kept a diary of smell incidents. He relayed most of his complaints to Scottish Water. Two neighbours, Elizabeth Mathews and Alison Grant, also complained. All three gained the impression that Scottish Water brushed aside their concerns. To a greater or lesser extent, each developed 'complaints fatigue'. For example, Mr MacBean's diary entry on 2 July 2015 states that he was "fed up making reports, nothing happens". The Boat of Garten community council carried out a survey to assess the position, but no evidence was led about its findings.

[21] Miss Mathews was not content to let matters rest. She instructed Professor Robert Jackson to investigate the problem. In autumn 2015, he produced a report noting "strong, intense and offensive sewerage odours on the steeply inclined earth embankment" between the WWTP and Tomboyach. Miss Mathews sent his report to Highland Council.

[22] Professor Jackson has scrutinised the operation of the WWTP for the last 5 years on behalf of different interested parties. In autumn 2016 he provided reports to Scottish Water. Later he gave evidence as an expert witness for the pursuer.

Summary of the early evidence

[23] In order to put the most recent evidence in context, I shall give ‘thumbnails’ of what the pursuer and his witnesses said at the first two diets of proof.

William MacBean He experienced frequent “horrible” odours which lasted most of the day and night. They prevented him from opening his windows, sitting outside, or working in his garden (he is a keen gardener). The warm summer of 2018 was “hellish”.

Pamela Hendry Sometimes she found it impossible to sit in the garden. The smell lingered on her clothes. There was a bad smell most of the time, which was worse in summer. It was particularly bad during desludging until chemicals were added in 2016.

Ian MacLeod The constant smell was sometimes bearable, but on four - six occasions a year, he felt so nauseous that he and Mr MacBean chose to eat elsewhere.

William Grant It was “much worse than the smell of manure being added to a field”. Once in the summer of 2017 the odour was “breath-taking”.

Aaron Sneddon The smell can be “absolutely rank”, like a blocked toilet.

- Anthony Mitchell* Sometimes the smell “almost made me gag”.
- Augustine Jones* “The smell can vary from nothing at all to so bad it makes you want to leave the area. I would not go as far as to say the smell makes you want to vomit, but it is almost as bad as that.”
- Tessa Jones* “At least on one out of every ten visits the smell is so bad that I have had to leave the area.”
- Kenneth Chrystie* It was unusual for him not to detect smells during the course of his regular walk past the golf course and over the Spey bridge. Often on visits to Tomboyach, he could not sit in the garden, which he regarded as unsellable.
- Elizabeth Mathews* She first noticed a smell “like rotting rats” on a desludging day. From time to time since then, she has noticed a horrible smell. In the summer some of her B & B guests have remarked on it. The problem has blighted her life and (she believes) affected the value of her house.

[24] It was on the basis of this evidence, mostly unchallenged in cross-examination, that Scottish Water conceded in January 2019 that it had been causing a nuisance.

Chronology - remedial works

[25] The focus therefore shifts to the steps that Scottish Water took afterwards to cure matters. First, it is necessary to take a backward glance. After becoming aware of the smell problem in 2015, Scottish Water asked Mott Macdonald Ltd (‘M²’) to investigate. M²

reported that the plant was generating higher odour emissions than expected for a treatment works of that size.

[26] Scottish Water subsequently sought to reduce the level of noxious odours coming from the WWTP. At an early stage, it identified desludging as a prime candidate for causing smells. From 2016 onwards, Taytech Ltd has injected chemicals into the sludge to mask the smell.

[27] In the course of 2019 and early 2020, Scottish Water carried out these remedial works:

<i>February 2019</i>	Taytech fitted carbon filters to treat any odours escaping through the air vents on the SAF. Ross-shire Engineering Ltd replaced the single cover on the SAF with seals to contain any foul odours within the system.
<i>March 2019</i>	Carbon filters were installed on the septic tank covers.
<i>April 2019</i>	Carbon filters were installed on the covers of other chambers.
<i>September 2019</i>	Odour Control Unit ('OCU') was installed on the SAF.
<i>October 2019</i>	All carbon media were replaced.
<i>November 2019</i>	A fixed pump was installed to connect the septic tank to the lorry tankers.
<i>January 2020</i>	Scottish Water blocked up a hole in the chamber cover for the chemical dosing hose, and sealed the inlet covers.

[28] Three of these items require fuller discussion: the OCU, the carbon filters and the fixed pump.

OCU

[29] Three engineering experts – Professor Jackson, Mr Peirson and Dr McIntyre - provided guidance on reducing or eliminating the odours. They agreed that, apart from desludging, the SAF had been the main source. Their preferred solution was an OCU to prevent fugitive emissions. It sucks the gases from the top of the SAF and blows them through a carbon filter.

[30] Scottish Water commissioned ERG (Air Pollution Control) Ltd ('ERG') to design an OCU to a high specification. Because of its substantial size, planning permission was required. Mr MacBean (somewhat surprisingly) was one of the objectors, but permission was granted. Subsequently, the OCU was installed and it began operating on 19 September 2019.

[31] Since then ERG's monthly tests show that the OCU has been "very effective" in eliminating odours. This is not in dispute. The parties have agreed by joint minute "that the OCU has reduced odour emanating from the SAF by a factor of greater than 10, or equivalent to more than 1 logarithmic change." At least one such change is needed to affect an individual's perception of a particular smell.

Carbon filters

[32] Carbon absorbs malodours. Scottish Water has fitted carbon filter trays beneath 17 manhole covers at the site. There is conflicting evidence about their effectiveness.

[33] Mr Peirson and Professor Jackson noticed grit present around the lip of some manhole covers. They query whether they are hermetically sealed, as they detected offensive smells during a site visit on 13 February 2020.

[34] By contrast Scottish Water monitors their performance and replaces them at least every 6 months. Laboratory tests carried out in October 2019 on used carbon media showed that they had done “a good job” in removing odours. The handful of covers that do not have carbon filters are lifted monthly for inspection. They are resealed on each such occasion. Stephen Kirby, senior site engineer for M², thought that the covers “work incredibly well.” Karen Dee of Scottish Water examined them in early 2020 and reached a similar conclusion.

Fixed pump for desludging

[35] Desludging of the four septic tanks takes place in rotation. One tank is cleaned every 4-6 weeks. A fixed pump on the ground now connects the pipework between the septic tank and the lorry tankers. It is a closed unit that restricts the emissions of smells. Previously, pumps on the tanker lorries sucked in the effluent, resulting in odours being expelled into the air.

Expert testimony

[36] In March 2020 I heard the evidence of three skilled witnesses. Professor Jackson and Mr Peirson (instructed by Mr MacBean), and Professor Philip Longhurst (instructed by Scottish Water) gave evidence at the commission hearing. Unfortunately, Dr McIntyre (also instructed by Scottish Water) was indisposed and unable to give oral evidence, but I read his report along with those provided by the other experts.

[37] Messrs Jackson, Peirson and McIntyre met on three occasions and signed a joint report, which contained a series of questions and answers. In his closing submissions, Mr Smith relied on the answer to question 9:

Do the experts consider that the design of the plant is 'fit for purpose'? If not, why not?

The agreed answer is:

“No. The plant may be ‘fit for purpose’ in purely terms of having the capability to treat sewage to the required standards, but it is not fit for purpose in terms of being able to treat incoming sewage whilst being able to adequately control odour emissions. Given the defenders’ performance to date, and on the balance of probabilities, recurring odour nuisance to residents will, from time to time, prevail during the design lifespan of the treatment works.”

[38] Dr McIntyre added a rider. In his view, no waste water treatment works can be termed ‘fit for purpose’, because they cannot treat wastewater to the required standard and at the same time eliminate odour emissions.

Source of any remaining problems

[39] Professor Jackson and Mr Peirson both now attribute at least some of the remaining odours to the manholes. Professor Jackson suggested that, prior to the installation of the OCU, the odours from the SAF may have masked every other smell. He has a more general view about the plant. He believes that, because of its design, the risk of odour nuisance will remain for the rest of its working life, perhaps 25 - 30 years. In his opinion the problems lie in and around the septic tanks. He accepts that there may only be one localised incident a day, but his preferred solution is either “to put a lid on the whole thing”, or to move the plant elsewhere.

Professor Philip Longhurst

[40] Since 1993 Professor Longhurst has studied the impact of emissions from waste plants on communities. I highlight three points made by him.

[41] First, there is no scientific method to determine what smell is acceptable to a particular individual. We all differ, for example, in our ability to tolerate the smell of human sewage. Emotions may play a role. Persons exposed to noxious fumes may exhibit feelings of depression, frustration, and anger. They are more likely to be annoyed if the odour occurs at unpredictable times.

[42] Second, he studied the number of complaints directed at the Boat of Garten WWTP and found that they had reduced since the remedial works were carried out, there is a “marked change” even for such a small sample (report figure 5.3).

[43] Third, when he correlated the complaints with the wind direction, he found that 48% were made when the wind was blowing in the opposite direction to Mr MacBean’s property (report table 5.4). That is “unusual and inconsistent with normal patterns of dispersion”. Professor Longhurst excluded instances of low wind speed, when odours could have lingered. But that still left 44% of complaints that appear to have occurred with the wind blowing in the opposite direction. He accepted that he is not a meteorologist and that the local topography is complex. In his opinion, however, it is highly unlikely that these smells could have come into Tomboyach from the WWTP.

[44] The expert opinion greatly assisted my understanding of the configuration and operation of the plant and, more generally, of waste water treatment facilities: *Kennedy v Concordia (Services) LLP* [2016] UKSC 6 paragraph 41. On the central question of continuing nuisance, however, the primary evidence comes from the factual witnesses.

Third proof hearing - March 2020

Summary of the pursuer's evidence

[45] The thrust of the pursuer's evidence was that, although the OCU has slightly improved matters, when bad smells do occur, they remain offensive. In cross-examination Mr McBrearty queried the reliability of the pursuer's witnesses. He suggested to each that they had given "skewed" evidence because of their friendship with Mr MacBean. Each witness emphatically denied that suggestion. Mrs Alison Grant misheard the question and mistakenly believed that her integrity had been impugned. Her reply was "I only know the truth. I'm sorry I don't tell lies. I can tell you that if you were up here you would smell this smell." Other witnesses stressed that their careers - in the law, the public sector, the military - had depended on them forming independent judgements.

Excerpts

[46] Again I provide thumbnails of the evidence led on behalf of Mr MacBean.

William MacBean "Although I would say that there has been a marginal improvement in how strong the odour is, it remains intolerable to me. I cannot face another summer of foul odour."

Maureen Hendry Overall the odour has not been as bad as when the WWTP first came into operation, but it is still present and very unpleasant.

Ian MacLeod He works off-shore and is very sensitive to smell, as any whiff of hydrogen sulphide ('H₂S') on an oil rig calls for immediate action. "I am pleased that I don't have to live

in that house or sit in that garden.” During desludging on 21 November 2019, the smell was offensive all around the garden. In 2020, he detected a “noticeable stink” twice in January, twice in February and once in March, although not as intense as formerly.

John Dickson

He has had experience of smelly drains as a former civil engineer. There were foul smells over three days at New Year 2020. On one of those days the smell along the river path next to the WWTP was unbearable “to the point I was almost retching”. He has not detected any smells in February and March 2020.

Gerald Dunkley

The intensity of the smell varies from non-existent to intolerable, mainly when desludging is taking place. Over the past few weeks, he has noticed the smell less often.

Gary Coutts

On each of his three or four visits since October 2019 there has been an odour of varying strength. At its worst, it is constant throughout the garden. Sometimes it reaches inside the house. He would not be able to tolerate even the milder odours for an extended period. He would not choose to holiday near the WWTP, far less purchase Tomboyach House.

Alison Grant

Within the last 2 - 3 months, she has noticed an odour at least once a week at various locations around Boat of

Garten. There is no clear pattern. It can last for an hour, go and come back again a couple of hours later. "I don't even want to leave my house at times if it smells outside. I consider the odour to be intolerable and it makes me worry about my health as I can often feel sick when I smell it."

Jeremy Burr

There is a noticeable and unpleasant odour in the pursuer's garden. Sometimes it is mild. Sometimes it is so bad that he is "barely able to stand it". At least three times within the last year he and Mr MacBean were unable to be outside. There is no set pattern. The smell can last for a couple of minutes, go away and then come back again. "I would not like to live next to the WWTP because of this regular intrusion and the disgusting smell."

Richard Eccles

He does not have a good sense of smell, so if he detects something, it must be odorous. In 2019 he visited the pursuer two or three times a month, slightly more in September and October. He detected smells from the WWTP on at least two out of every three visits. It ranged from mild to "the really pungent odour that catches the back of your throat."

Augustine Jones

He has not noticed any improvement since last September. On at least six or seven occasions between

November 2019 and January 2020, he noticed a milder odour. The worst occasions recently have occurred when desludging has been taking place.

Tessa Jones

Like her husband, she has not noticed any recent improvement. At least twice in the last 3 months she has had to move away from the area because of the smell. Even slightly milder smells make her want to leave. The worst smells have occurred during desludging. During desludging in the week commencing 20 January 2020, there was a strong sewage and perfume smell.

Evidence led by Scottish Water

General

[47] In early 2019 Scottish Water engaged M² and Silsoe Odours Ltd ('SOL') to monitor odours at the site. M² set up a team of graduate engineers (all male) to carry out this task each weekday and to respond quickly to any complaints. SOL arranged for two employees (both female) to make monthly visits to the site from July 2019 onwards.

[48] Both teams use Jerome meters, which are hand-held devices that measure the concentration of H₂S in the atmosphere. The anaerobic process in the septic tanks is likely to generate H₂S, but WWTPs may emit other odours which these meters do not measure.

[49] SOL conducts smell sensitivity tests at its laboratory in the south of England in accordance with European Standard BS EN13725:2003. It has tested all the M² and SOL assessors, most more than once. Test candidates have to identify which of two test tubes contains clean air and which contains n-butanol mixed with air. The test is repeated at

increasing concentrations to determine sensitivity. Smell assessors are selected to be within the normal range.

[50] Although M² and SOL work independently, both employ similar methodology.

Their respective protocols direct the assessors to follow a set route around the site and its environs. At fixed points, they carry out a sniff test and take a Jerome meter reading. They record on a *pro forma* sheet their findings in relation to the nature, intensity, duration, extent and potential source of any smells.

[51] M² uses a scale of 1 – 5 for odour intensity and extent. By way of illustration, an odour intensity measurement of 1 would be very faint, 2 would need a bit of effort to smell it, 3 would be a clear smell, 4 would be offensive, and 5 would make you gag. There is also a scale for extent - where a measurement of 1 would mean that the odour could only be detected if standing right at the location or there is a gust or drop of wind.

M²

[52] The M² assessors carry out their task on weekdays in two shifts (09:00 - 15:00 and 15:00 - 21:00). They take readings every 2 hours at 10 fixed points, 5 within the site boundary and 5 outside. None are on Mr MacBean's property.

[53] On arrival an M² assessor typically follows this pattern. (a) He goes to the main control room and checks the weather, including the wind direction, the pump speed, and the flow meter which shows the amount of waste water entering the plant. (b) He takes a *pro forma* recording sheet and inserts the date, time and weather information. (c) He slowly walks clockwise round the site stopping at the 10 points. (d) At each one he puts the Jerome meter on the ground and while waiting to obtain a reading (15 seconds to 1 minute) sniffs the air. He note downs his findings for each location on the sheet. If he detects a foul odour,

he will try to identify its likely source. It takes between 20 - 40 minutes to complete each survey.

[54] Each week M² sends copies of all the sheets to Scottish Water, together with a spread-sheet collating the results. Ten M² assessors gave evidence at the proof. Their record sheets were lodged in process. I propose to illustrate the M² approach by drawing on their evidence in some detail.

M² records pre-OCU

[55] I regard 19 September 2019, when the OCU became operational, as a key date in this case. What really matters is the nature, degree and frequency of odours afterwards. But I shall begin by looking at excerpts from the records compiled by the M² assessors before then. I do so to show their general approach from the outset. This is not a representative sample, as I have selected records where a smell was detected.

Stephen Kirby

24 May At 11:10 an odour at the top of the SAF, but no smell outside the site boundary (intensity 3, extent 3).

David Alexander

4 June A few faint, local, transient and intermittent odour readings at the septic tank outlet, at the top of the SAF and on the river path.

24 June A couple of 3s - a moderate odour with a localised extent. Within 2m the odour intensity would have dropped to a 1 or 2. Also a very faint and very intermittent odour beside Mr MacBean's boundary fence.

Andrew Gibson

27 May 16:55 Odours at (a) the splitter chamber (intensity 2, extent 1). A person had to take a deep breath on the spot to perceive a smell. There was no smell a couple of steps away. (b) the SAF unit (intensity 3). You could smell it when breathing normally but it wasn't overwhelming. It was a constant smell so he smelled it all the time. It did not need a bit of a wind to pick it up. At 20:29 at the septic tank outlet the Jerome meter gave a high reading but he could not smell anything.

5 August 20:20 A constant mild or stronger intermittent smell at the SAF (intensity 3 extent 2).

20 August 20:23 on a 20m stretch of the river path (intensity 3).

Andrew Davidson

1 August 20.30 The Jerome meter recorded a high concentration at the septic tank outlet, so he tested it three more times.

Alexander Bogdanovic

17 August A faint odour directly above the SAF (intensity 2 extent 1).

Fraser Hogg

11 June Odours on the way to, and at the top of, the SAF at 16:32 (intensity 2 extent 1) and again at 18:30 (intensity 3 extent 3).

12 June 10:30 Odour at the inlet cover (intensity 3 extent 3). The smell had a radius of about 5m.

31 July 15:00 At the river path (intensity 3, extent 1). Easily detectable when there was a gust of wind, or when the wind dropped.

18:30 at the top of the SAF (intensity 4, extent 3) and also on the path leading to the SAF and the road towards the turning circle.

Rhodri Lucas

6 May 09:13 At the splitter chamber (intensity 3 extent 2).

At 11:28 at the inlet cover (intensity 3, extent 3).

26 July 14:47 At the SAF (intensity 3, extent 3).

Donald Morrison

3 June 17:00 At the top of the SAF (intensity 3, extent 2). The intensity was that of a moderate odour of a sweet sewage smell but was transient. It could not be detected about 10m away and did not persist.

1 July 19:10 A predominant smell of grass-cutting towards the front of the site.

17 July 20:30 Started to pick up a smell when walking up the steps towards the SAF (intensity 3, extent 3). It was just in the immediate vicinity but more persistent than previously.

20 August 12:45 A very faint smell from the septic tank (intensity 2).
No smell at the splitter chamber 10m away, or the
pumping station 4m away.

Readings post-OCU

[56] Turning to the period after the OCU became operational, I will distil the evidence in a similar manner. Again I have mainly chosen entries where smells were detected.

Andrew Davidson

26 September A smell from the manhole opposite the site entrance. He took two readings as he had not smelt anything here before. Although the readings were high, the smell was localised, faint and intermittent and did not merit further investigation.

3 October Barely detectable and transient odour at the inlet cover.

10 October 18.48 A faint, transient and intermittent smell *en route* to the SAF.

11 October 08.55 A faint, transient and intermittent smell at the manhole opposite the site entrance.

11 December The smells of a wood fire.

Stephen Kirby

13 November Sewage had been spilt on the ground, giving rise to an odour at the splitter chamber and the pumps (intensity 3.) It might have gone into Mr MacBean's

garden. It was not offensive and had disappeared by 20:30.

David Alexander

- 23 September* 09:05 A faint localised odour within 1m of the cover at the intermediate pumping chamber. It was only noticeable when bending down to pick up the Jerome meter.
- 17 October* 17:05 A faint sewage odour at a manhole opposite the site entrance. There have been a few instances of a very faint smell there generally only noticeable when bending down to pick up the meter. It was very faint and very localised, within 2m of that manhole. "The smell was pretty much gone by the time you stood up."
- 24 October* Smoke smells from properties across the road.
- 11 November* A faint odour at the manhole at the site entrance. Jerome meter gave a high reading at its top, but at waist-height recorded a faint odour. No odour 10m away.
- 20 November* A turnip smell at three locations, all within the site boundary.
- Andrew Gibson**
- 14 and 15 October* At the septic tank (intensity 2). Only detectable if standing right on top of it and consciously inhaling.

- 20 November* 12:55 At the intermediate pumping station (intensity 2). Detectable directly on top of its covers if sniffing into the wind.
- 16 December* 15:30 The top of the inlet cover (intensity 2). As soon as you walked away, it was not noticeable.
- 16 December* 17:03 the splitting chamber was being upgraded and there was not the right connection for desludging. An open pipe led into an open drain for a couple of days. At the inlet cover I recorded an odour intensity of 3. If you stood right on top of it without breathing in deeply you could detect it. You would basically get it from a walk-by. I would say a metre away you would not be able to smell it.
- Fraser Hogg**
- 19 September* 8:55 At the septic tank outlet (intensity 2, extent 1). The smell was faint, intermittent and localised. At 11:00 he noted an odour at the inlet cover (intensity 2, extent 1). It was faint and right on top of the cover.
- 15 October* 20:15 An odour intensity 2 at the septic tank outlet. Although it was constant it was very faint and probably not detectable on the road.
- 16 October* 11:35 A constant odour at the intermediate pumping station (intensity 3, extent 1), following a desludging operation a couple of hours earlier. It was not present at

the septic tank outlet, or a couple of metres away on the opposite side of the road.

16 October 13:00 and again on 24 October at 20:25 an intermittent odour at the septic tank outlet and intermediate pumping station (intensity 4, extent 1). Although it might have been offensive, unless there was a gust of wind, only detectable when directly on top of it. A couple of metres away you probably could not smell it.

13 November 11:30 At the septic tank outlet (intensity 4, extent 3). Ross-Shire Engineering were carrying out works there that day and had the manhole covers open for prolonged periods of time.

21 November 17:10 at the splitter chamber and septic tank outlet (intensity 4) and at the intermediate pumping station (intensity 3). These three locations are all in close proximity to each other. He did not detect anything at the SAF unit or the inlet cover.

22 November 13:15 A “very strong whiff” but at the intermediate pumping station (intensity 4, extent 1).

Rhodri Lucas

20 September A faint and intermittent odour (intensity 2, extent 1) at the intermediate pumping station. He had to stand on top and make an effort to smell it.

- 14 October* 11.07 A persistent but localised odour (intensity 2, extent 3) at the inlet cover and splitter chamber.
- 25 October* 15.04 At the manhole opposite the site entry (intensity 3 extent 1). It was a moderate sulphurous odour that he could smell easily without any effort. Only when standing right on top of the chamber could he smell it. It was intermittent. You could not smell it from a couple of metres away.
- 21 November* 08.56 A moderate odour at the splitter chamber and septic tank outlet (extent 3) but localised to the area around the sludge tanker, which was there for desludging.

Donald Morrison

- 2 October* A prominent smell of manure.
- 7 October* 17:05 A transient smell at the septic tank (intensity 2, extent 1).
- 5 December* In the morning a faint, localised smell at the splitter chamber and septic tank. At 11.15am the splitter chamber was open for works to be carried out (intensity 3, extent 1). At 12:45 at the septic tank and the intermediate pumping station (intensity 2, extent 1).

Arife Madranefe

1 November 09:00an odour intensity of 2 at the splitter chamber. The smell was very localised. After 2m there was no smell at all. It was within the site boundary.

Investigation of complaints by M²

[57] Scottish Water asked M² to respond quickly to complaints about the WWTP. Most have been relayed by the helpline. In each case, the M² assessor will typically try to speak to the complainant before attempting to detect any odours for himself. Mr MacBean has been the main source of complaints. Here is a sample of the 2019 investigations undertaken by M² in response.

31 July and 1 August Fraser Hogg detected a very faint odour in Mr MacBean's garden, something that you might notice as not being fresh air, but not something strong.

20 May Rhodri Lucas could not detect any smell in Mr MacBean's garden.

26 June David Alexander spoke to Mr MacBean and Ms Hendry, then walked around the perimeter of the property without detecting any smells. Mr Alexander came back and spoke to them for about 5 minutes in the centre of his garden. There was a large gust of wind and he got a very faint odour. The others made out that it was unbearable and Ms Hendry said that she was almost falling over from the smell. Mr MacBean was seated on the ground. Mr Alexander took a couple of

more readings on the Jerome which disclosed readings of c 3ppb but the odour was very faint and very intermittent. He only noticed it on the one gust of wind.

5 June Andrew Davidson recorded a musty odour from the SAF on the path. He completed a round of odour monitoring, but did not find any smell in the garden.

19 June Fraser Hogg investigated a complaint of a strong odour coming from the SAF. He went to Mr MacBean's house and asked him to mark on the complaint form map where he could smell it. Mr Hogg could not detect anything at any of the locations identified by Mr MacBean.

5 July Andrew Gibson did not detect anything when investigating a complaint made by Mr MacBean.

1 August Andrew Davidson went to Mr MacBean's house, but did not detect a smell at the location he indicated but did detect a faint smell at the lower boundary of the garden.

Arife Madranefe Investigated complaints made on 10 June, 29 July, 8 and 9 August. He was able to detect faint localised odours, but nothing to support a problem.

25 November This complaint related to odours both that morning and throughout the preceding weekend. Shortly after receiving word of it at 11.45am, David Alexander carried out Jerome meter measurements. They registered zero at three locations adjacent to the boundary fence with Mr MacBean's property,

one along the access path to the SAF unit and two along the river path. The Jerome meter registered zero at all these locations. Mr Alexander detected no smells using a sniff test, other than (a) an intermittent faint odour of cabbage on the river path (intensity 2 extent 1), and (b) a similar odour coming from the manhole covers at the splitter chamber. He also carried out a meter reading and sniff tests beside the area of the loading pump which is close to the entrance to the treatments works. There was a zero Jerome meter reading at that location and no detectable odour. Mr Alexander went to visit Mr MacBean at his house, who made it clear that he had experienced smells in his property and in the vicinity of the treatment works since the previous Thursday (21 November), when the newly installed pump was used for desludging of the septic tanks for the first time.

[58] I recognise that some of the complaints were made hours or even days before M² had an opportunity to carry out investigations. But it is striking that in some cases, their investigators had very different perceptions to those of Mr MacBean.

M² summary

[59] All the M² witnesses said that they had never smelt anything intolerable or offensive at the site. Any odours had been faint, localised and intermittent. The only exception was desludging. They accepted that during that operation, there had occasionally been more

persistent smells of higher intensity. Smells had also come from elsewhere - a small bonfire in a neighbour's garden and a local farmer fertilising his fields with manure.

[60] Here are some excerpts that give the flavour of their evidence.

Fraser Hogg "Barring the odd anomaly... had you not known that you were on a [WWTP], any odours detected would be comparable to if you were out for a walk in the countryside."

Arife Madraneffe Any smells have been localised, faint and within the site boundaries. He has only rarely recorded an odour intensity of 3.

Alexander Bogdanovic The OCU had "totally eradicated" the slightly sweet smell there before.

Andrew Gibson There has been a "100% difference" since the installation of the OCU. Other than the manure from the fields, I have not smelt anything which I would consider to be intolerable or offensive. The SAF Unit did have a detectible smell but it was a sweet smell and not offensive.

SOL

[61] Sarah Bevan and Maureen Goodwin of SOL have visited the site once a month since July 2019 to carry out odour assessments. The only exception was November 2019. Most visits have lasted 2 days. None has taken place on a desludging day. Only Mrs Bevan gave evidence at the proof, but Ms Goodwin's affidavit supports her account in all material respects.

[62] SOL takes its measurements at 18 fixed points, which are located (i) at the site, (ii) on the Spey Bridge, (iii) across the river near to Miss Mathews' establishment, and (iv) at 4 points in Mr MacBean's garden. At each point they sniff the air every 10 seconds. The assessors primarily focus on sewage odours, but they record any other smells that they come across, such as manure from local fields and from the wood burner at the local golf club. Each SOL survey takes about 90 minutes to complete.

[63] The evidence of Mrs Bevan and Ms Goodwin supports the M² testimony. On their first site visit in July they detected the smell of sewage, which they followed into Mr MacBean's garden. That is when they first met him and he gave them permission to carry out part of their regular surveys on his property.

[64] Since then, they have hardly ever detected sewage smells outside the site itself.

Mrs Bevan said:

"So rare are these occasions that I have at times annotated my sheets or the map marker app if I feel there are circumstances that might account for the odours and warrant further explanation."

"I have noticed a difference at the site since I visited in July. The last few times I have been there, apart from the one occasion with the heavy rain, or when I have been close to where samples are being collected, I haven't recorded any odour."

[65] An exception occurred during their visit on 10 and 11 December 2019, when they detected a strong sewage odour coming from the top of the septic tanks. On the morning of 6 January 2020 she noted a very faint sewage odour.

Other evidence relied on by Scottish Water

Miss Rachel Smith

[66] Miss Smith has lived opposite the plant since May 2017. Although her house is across the river, it is closer to the site entrance than Tomboyach. She is not troubled by smells and says there are fewer instances this year than before. She works as a shop assistant in the village and says that smells are not a topic of conversation. She gave the following hearsay evidence: “everyone tells me that there were issues but they have been rectified”.

Highland Council

[67] Mr MacBean contacted Mr Murdoch in mid-2015. In his reply Mr Murdoch asked Mr MacBean to provide details of each odour incident as it occurred. He enclosed forms for that purpose. They called for information about: (a) the date and time of each incident, (b) the weather conditions, (c) the nature, location, duration and extent of any smell, and (d) its likely source.

[68] Despite reminders, Mr MacBean did not always complete the forms. That frustrated Mr Murdoch’s ability to assess the impact of any smells. He did, however, investigate whenever he was in the area. In the course of several visits, Mr Murdoch twice smelled odours. One occurred during desludging. The second time he briefly detected a very faint smell when he was standing beside Mr MacBean at the top of the embankment between the garden and the site.

[69] Mr Murdoch had two students on placement with him for a 6 month period in 2016. He enlisted their help with this matter. He encouraged them to check the position if they

were in the vicinity. They did not notice any smells that compromised the amenity of the neighbourhood.

[70] At the pursuer's request, Mr Murdoch attended a desludging operation on 28 February 2019. He went with his manager Gregor McCormack. When they arrived at Mr MacBean's front door, he said that he could smell odours. Neither of them could detect a smell. All three then walked through the garden. About half way to the WWTP, Mr Murdoch and Mr McCormack picked up faint odours. They also noticed a faint smell at the fence, which is the highest point of the garden. Mr Murdoch said words to the effect that it did not amount to a statutory nuisance, as that requires a severe smell for a protracted period. Mr MacBean was unhappy with this response. He remarked that the two men "were in cahoots with Scottish Water."

[71] Mr Murdoch gave evidence on two further points. First, he said that Scottish Water is operating the plant in accordance with its updated odour management plan. Secondly, the council has received complaints from fewer than five other residents about smells in the area. All bar one were one-off complaints. Nuisance recording sheets sent to them by Mr Murdoch were either not returned or returned saying there was no longer an odour.

SEPA

[72] The Scottish Environmental Protection Agency ('SEPA') has a particular responsibility to ensure that the quality of the water discharged back into the environment from WWTPs meets certain standards. It has no responsibility for odours.

[73] In an affidavit dated 7 August 2019 Lisa Forsyth, a senior SEPA employee, makes four points. First, over the years Mr MacBean has mentioned to SEPA that bad odours come from the WWTP, as well as complaining about discharge from the sewer overflow.

Ms Forsyth says that only one other individual has made complaints about both issues. She added, "Since the site was upgraded in 2015 and after we received a number of complaints about the site which have reduced significantly since 2017." Second, the WWTP complies with its SEPA licence conditions. Third, she has not noticed any odours when she has been on site. Fourth, compared to the old plant, the new plant has materially improved the effluent quality of the discharged water.

A replacement plant?

[74] Scottish Water says that it would be prudent to allow 5-6 years for a replacement plant to be operational. That is because there are variables outside its control. They include identifying a suitable site, acquiring the land, obtaining planning permission and constructing the works. It has no cost estimate, other than using as a yardstick the £5.4m cost of the present works. Interdict (whether granted now or at some later stage) would have significant consequences. A convoy of tanker lorries would be required to transport the effluent away on a daily basis. Other plants would have to check whether the extra volume would affect their SEPA licence conditions.

Is there a continuing nuisance?

[75] I accept that the WWTP continues to emit odours that come on to Mr MacBean's property. But the key question is whether they amount to a continuing actionable nuisance.

[76] As to the nature, frequency, and intensity of the smells, I prefer the evidence of the M² and SOL assessors to those of the pursuer's witnesses. I do so because of the weight and cogency of their evidence. I found it to be more accurate because (a) they were independent, (b) the methodology itself was systematic and exacting, (c) they all carried out their task in a

meticulous way, (d) they had detailed records of their findings, (e) it took place several times of day over many months, and (f) they were all clear that there had been a marked fall in odours since the OCU began operating. Their evidence provided a detailed and complete mosaic.

[77] I would add this observation. My impression was that the assessors were actively pleased to find smells. It relieved some of the monotony of their task. In other words, there was no attempt to ameliorate the figures.

[78] By contrast, the evidence led by the pursuer was largely anecdotal. Some came from persons who visited the village from time to time, rather than residents. They had limited opportunities to detect smells. Some detected no change pre and post OCU. That seemed odd, given the agreement that it materially altered matters. They were not reliable about the big picture. Their evidence provided an unfinished jigsaw.

[79] I therefore hold that while the WWTP continues to emit offensive odours, they are irregular, faint, transient and only occasionally go on to Mr MacBean's property.

[80] Next I must give "due weight to all the surrounding circumstances of the offensive conduct and its effects". In this regard I consider the following factors to be relevant. First, Scottish Water did not intend to cause a nuisance and has taken careful steps to try to cure the problem. Secondly, there are few complaints from persons other than Mr MacBean. Thirdly, the WWTP performs an important public service which would create major disruption if it had to move elsewhere or cease operations. There are three further points. It appears that many complaints relate to desludging. I am not satisfied that they cause a nuisance on every occasion, but even if they do, I hold that they are reasonably tolerable, having regard to the degree to which they invade Mr MacBean's property and disturb his amenity: *Stair Memorial Encyclopaedia*, Nuisance (Reissue) (paragraph 51).

[81] Second, I have taken into account the regrettable misstatements made by Scottish Water at the outset. They form part of the overall context, but do not determine my decision.

[82] Third, I do not accept the experts' statement in their joint report that the plant is "not fit for purpose". That finding usurps the function of the court and in any event must be seen in the context of Dr McIntyre's rider.

Defence of implied statutory authority

[83] Mr McBrearty advanced a fall-back submission of implied statutory authority. He founded on Lord Blackburn's statement that:

"... no action will lie for doing that which the legislature has authorized, if it be done without negligence, although it does occasion damage to anyone; but an action does lie for doing that which the legislature has authorized, if it be done negligently":
Geddis v Bann Reservoir Proprietors (1878) 3 App Cas 430, 455-456.

[84] This argument only emerged in his closing submissions. It was not mentioned in the pleadings until February 2020, when the defender added one opaque sentence to Answer 7. Mr Smith said that the submission had taken him by surprise. He indicated that he would have presented the case in a different manner, founding on the misrepresentations made during the planning process as amounting to negligence.

[85] In view of my decision on the merits, Mr Smith's difficulty, and standing that Scottish Water does not have a relevant plea-in-law, I decline to reach a view on this point.

Conclusion

[86] I hold that the pursuer has not established a continuing nuisance. I shall fix a By Order hearing to hear submissions on the order I should now pronounce, given the decree of declarator I have already pronounced.