



IN THE SUPREME COURT OF JUDICATURE OF JAMAICA

IN CIVIL DIVISION

CLAIM NO. 2008 HCV 02550

BETWEEN	ORINTHIA HANSON	CLAIMANT
AND	ALCOA MINERALS OF JAMAICA INCORPORATED	DEFENDANT

Ms. Symone Mayhew and Mr. Vaughn Bignall instructed by Bignall Law for the Claimant.

Mr. William Panton and Miss Maria Burke instructed by DunnCox for the Defendant.

Heard: July 19, 20, 21 and 22, 2010 and October 12 and 18, 2012

Negligence – Proximity or Neighbourhood – Duty of Care – General Duty on Occupiers in Relation to Hazard on Their Land – Extent of Duty – Expert Evidence – Nuisance – Substantial or Trifling

Campbell, Q.C., J.

Background

[1] The Claimant, Orinthia Hanson, has for over thirty years, operated a poultry farm in Toll Gate, in the parish of Clarendon. The farm consists of over five acres of land, and has three large chicken houses, each capable of housing ten thousand birds. In addition to the birds, she raises milk and beef cattle, pigs and goats. There are accommodations for the farm hands. Mrs. Hanson lives on the farm in a six bedroom structure. The Claimant says that prior to 2005, her farming operations were a tremendous success. She had a contract with Jamaica Broilers to supply that company with broiler chickens.

- [2] The Defendant is a bauxite mining company and occupies land on over 37 acres, known as McGilchrist Palms, adjoining the Claimant's farm. In 2000, the Defendant obtained approval to subdivide a portion of this area into a mix of 104 farm and residential lots. In early 2002, the Defendant carried out work on the said property and constructed a housing development, mainly for relocating persons. The Defendant has constructed two detention ponds on the property as a part of the drainage system.
- [3] Of the two detention ponds, the western pond is the closer to the Claimant's property; these ponds were designed to capture the flow from the sub-division in a ring drain. Outside of rainfall events, it was envisaged it could be used as a football field. The pond is approximately six feet deep and covers three acres and is raised about seven feet from ground level.
- [4] On the 14th May 2008, Mrs. Hanson filed a claim to recover damages for negligence and/or nuisance and/or under the Rule in **Rylands vs Fletcher**, for that on or about the 23rd day of May 2002, October 2002 and October 2005 and on diverse days, the Defendant, whether by itself, its servants and or agents caused damage to the Claimant's premises as a result of flooding, dust and smoke occasioned by activities carried on by the Defendant on adjacent property owned and controlled by the Defendant.
- [5] The essence of her complaint, in respect to the floodings, is that the Defendant failed to construct a proper and adequate drainage facility or dam to prevent water escaping from its premises to the Claimant's property. That since the construction of the ponds, the Claimant has been subjected to floodings of her property such as she has not seen in the thirty years preceding their construction. The first of these incidents of flooding was on the 23rd May 2002; the said catchment overflowed and flooded the Claimant's property including her home and, as a result, she lost 30,000 chickens, 11 goats and 3 cows.

[6] The Claimant's case as to the damage that occurred on the dates in question came through the testimony of the Claimant and her neighbours, Mr. and Mrs. Edwards. The Defendant criticized the written statements of Mr. and Mrs. Edwards as being almost identical. Most of the paragraphs are exactly the same. In paragraph 11 of their witness statement, both Mr. and Mrs. Edwards, state:

This was the first time in all the years I have known the properties, Mrs. Hanson and mine, to have experienced great flooding even in times of major hurricanes like Gilbert in 1988, other major rainy seasons in which many areas in Clarendon experienced flooding but we did not experience any flooding.

12 I can recall that Mr. Hanson, Mrs. Hanson's late husband used the said premises as a shelter for persons nearby who experienced flooding in times of heavy rainfall. My premises, especially the church building, was also used as a shelter and a central point for assistance provided by Red Cross of Jamaica.

13 This all changed when Alcoa did some development work on the adjoining premises in 2002, in which they cleared the land which was covered in trees and other vegetation. Mrs. Hanson's paragraph 19 was similarly worded.

[7] Mrs. Hanson's written statement at page 16 & 17 states:

During the time I have lived and operated my chicken farm on the said premises, I have never experienced any flooding of any kind until in May 2002 and in October 2002 and again in October 2005.

This was the first time in all the years I have lived there that I experienced flooding, not even in times of major hurricanes like Gilbert in 1988 when my poultry houses blew down but there was no flooding or other rainy seasons in which many areas in Clarendon experienced flooding but I did not experience any flooding.

[8] In cross-examination on this point, there was some variation by all three witnesses. Mr. Edwards said that he had other memories of flooding other than the dates alleged in the claim. He recalled 1986, that bridges were washed away and people died. He recalls flooding in Osborne Store before 2002. Mrs. Edwards did not recall any flood in 1986, as she was then living permanently in the United States. She said that Toll Gate is an area prone to flooding. She said

it was wrong to say there was no flooding before May 2002; the witness said any flooding before 2002 would not rise above her ankle.

[9] Mrs. Hanson recalls extensive flooding in 1986; she said it was by St. Jago Road. She recalls floodings in the 1960s. She says she lives ~~not~~ quite a half mile+from Toll Gate. When there is flooding at Toll Gate, it does not affect her. She was not aware that bridges were washed away in 1986 and persons died.

[10] As to the source of the water, Mrs. Edwards says that water would come off the parochial road; ~~wh~~ when it rained extensively it would gather onto the parochial road, then onto my property, it would run straight through my property to the Alcoa lands.+ The witness had earlier denied that the main source of the water was from the parochial road. She stated that there was nothing on the road creating any problems. She said that the water from the parochial road was not big enough to give flooding that took place in May 2002.

[11] Mr. Edwardsqtestimony on the source of the water is consistent with that of his wife; he says in cross-examination, ~~th~~ there was a lot of water on the parochial road. The water would wash over to my property to some extent. When the parochial drain overflows, it would wash over.+ The witness gave evidence of a drain running under the roadway of the parochial road. There were times when the water ~~ba~~cks up+in that area, and that the level of the roadway is above the level of his property. Mrs. Hanson, while admitting that water tends to settle on the old main road, denies that any water from the parochial road comes via the old main road onto her property.

The Expert Evidence

Mr. Basil Poorman – Consulting Engineer

[12] Both sides produced expertsq testimony. Mr Basil Poorman, Consulting Engineer, submitted an Expert Witness Report entitled ~~an~~investigative Report of Flooding done to Mrs. Orinthia Hansonq Property, Toll Gate . Clarendon+on the 23rd May 2002, 1st October 2002 & the 25th October 2005. In an Introduction it is

stated, "Report the events leading up to the flooding to the property, the factors causing the flooding.+ It traces the sequence of events leading to the flooding, indicates the extent of the damage and outlines the mitigative activities required. The report notes that before construction started, the area was heavily wooded. This vegetative growth resulted in slow movement of storm water over the land with a considerable amount percolating into the soil as well as draining into three undisturbed sinkholes on the property, thus reducing the amount of actual runoff.

[13] Of the four rainfall stations in the general area, Osborne Store was the closest, but there was deficiency in the data, in that the records dated to only 1996. Mr. Poorman was of the view that the data from the remaining stations "are patchie and so is not suitable+. He held consultations with bodies concerned with the subdivision approval process. The Clarendon Parish Council, the National Environmental Protection Agency, National Works Agency. The Report expressed that none of the approval agencies can produce a copy of the relevant original drainage drawings.

[14] The Poorman Report, in its conclusion on the integrity of the construction, noted inter alia; "the drainage system is not complete and the portion which is complete is in such a state that it creates serious drainage problems. That the West Pond is unkept and very irregular. "there is no overflow facilities from the pond, so if and when the pond is full, it is going to overflow and will result in flooding of the surrounding area and the adjacent properties in its vicinity.+ There are six sections in which drainage channels are to be constructed. The drainage systems found on the ground cannot function as an integrated system unless it is rectified and completed. The design is also deficient.

[15] The Report found that there were two well-defined drainage features. The Milk River to the west and Jacks or St. Annes Gully to the south east. The Toll Gate area lies approximately mid way these two features. According to Mr. Poorman, any development in the general area has to rely on the sink holes, percolation into the soil and the holding capacity of vegetative cover, unless a drainage path

is created that will discharge the storm water into one of the two rivers or their tributaries.

- [16] He identified the lack of a proper drainage system, as well as a lack of an adequate and safe point of discharge of the storm water runoff outside of the subdivision and from the pond. Further, the lack of overflow facilities as being responsible for the flooding that affect Mrs. Hanson's property. Drainage water runs south from the McGilchrist into the McGilchrist Pen and continues towards the Toll Gate main road. He opined that half of the runoff from the Jamalco property flows to the pond and towards the edge of the western pond, is higher than the Hanson property. Levels were taken along the old main road and its smaller drains that confirm that no water flows from the road into Hanson's property. The report states that the excavated material was used to fill sections all over the property. Included in the areas filled were three sinkholes.
- [17] Shown the hydrologist report that states that the pre construction runoff would have inundated the chicken houses, Mr. Poorman disputes this, because of the current lack of vegetation cover, and the filling up of the three sinkholes that existed on the property, as well as a number of small ponding areas. Mr. Poorman relied on the interviews he had conducted with the townsfolk and the Parish Council to support his assertions about the vegetation and sinkholes. The area of the pond, he said, would hold 15.4 million gallons of water, and some two to five million cubic feet of earth was removed. He was of the view that it was some of that material that was used to fill the sinkholes.

Hydrologist Consultants

- [18] The Expert, Hydrology Consultants Ltd. was commissioned to implement a flood study centred on the McGilchrist Palm Housing sub-division located at Osbourne Store in the parish of Clarendon. The study stated that it was understood that the assignment required a determination of (a) the cause of the flooding of the Hanson Property associated with heavy rains in May 2002 and October 2005, (b) and the roles, if any, played by the McGilchrist Palm housing subdivision in these events.

- [19]** In the absence of measured record of surface runoff associated with the 2002 May and October rainfall events at Osbourne Store, the Expert used a system developed by the Army Corps of engineer. This model requires input of rainfall and parameter describing the physical properties of the catchment area. The rainfall data was obtained from St. Jago Farm gauge. Two hydrologic catchments were identified. The Hanson Farm is located at the downstream exit of the western exit. The report confirmed the presence of sinkholes in the lower section catchment. Data from several sources were used to determine the proportion of rainfall that infiltrated into the subsoil and that which remained on the ground. The downstream exit has been blocked by the Toll Gate main road, which creates a depression upstream.
- [20]** The report noted that the Clarendon Parish Council did not require technical justification of the drainage design or details of the drainage structure and none was provided by Jamalco. Active sinkholes were located near the south-west boundary, filled with dry vegetation litter; they received and disposed of water ponded in their associated depression.
- [21]** In determining the effects of man-made structures, Mid Clarendon Irrigation Canal, the Expert employed anecdotal evidence from persons familiar with canal, and concluded that the canal was overtopped by surface runoff during the rainfall events of 2002 May and 2005 October. The surface runoff within the subdivision itself is channelled into the two detention ponds. The West Pond was created by deepening a section of the existing depression, increasing its storage capacity.
- [22]** In respect of land use, the area south of the railway line was adjudged to consist of woodlands in fair condition and farmsteads after the development. The Report observed that in respect of both 23rd May 2003 and 17th and 18th October 2005, in both the pre and post development periods, the flood stage of the depression would have far exceeded the storage volume in the natural depression; the Hanson chicken houses would have been flooded.

- [23] The Consultant's Report states that pre-development runoff far exceeded the storage volume of the natural depression, spilling over the eastern lip of the depression to discharge further east. The hydrologist consultant report, notes an incremental runoff generated by the housing development, of 32,000 m³, which was to be contained or detained in additional storage of about 30,000 m³. The pre-developmental stage would have completely flooded the Hanson chicken houses.
- [24] What emerges from any comparison of the figures presented by the Hydrologist Report for the incremental runoff generated by the housing development and the additional storage created by the Defendant to deal with it, is that the additional capacity was grossly inadequate and would only serve to exacerbate the problem of flooding in the area. This is supported by the Keir Report, based on a site examination conducted on the 24th May 2002, which, states on page 2, "The main areas of concerns are the size of both retention ponds; they cannot handle the volume of water being collected by the existing drain network, and on page 3, "Water that should flow into a drain juxtaposed to the west pond was not happening, the volume was too much, the water overtopped the pond and sheet flow onto the following lots, #97, 98, 99, 99A and 106."
- [25] Mr. Poorman contended that the flooding was caused by the denudation of the vegetative cover in the area and the filling up of three sink-holes, possibly with the earth excavated from the natural pond. In cross-examination, he says that the earth drain does not get to the detention pond, only a portion goes that route into the drain across the road. Mr. Poorman testifies that his levels indicate that the water goes southerly, and when the pond is full, there is no overflow facility.
- [26] The evidence of the experts is crucial in the determination of the cause of the flooding of the Claimant's property. The qualifications and experience of the two experts have not been challenged. The approach to be undertaken by a trial Judge was outlined in *the Jamaica Flour Mills Limited v West Indies Alliance Insurance Company Limited and others*, SCCA 92/94, delivered on the 16th May 1997, where Rattray P said at page 123;

"A trial Judge may well conclude that a theory or viewpoint expressed by one expert or another is flawed. Indeed, we are very much in the realm of theory in many aspects of this case. The flaw may emanate from several reasons. The experts may have strayed outside the specific areas of his expertise. He may have failed to take factors into account which, had he done so, could have led him either to a different conclusion or affected the certainty with which his opinion was proffered. Furthermore, since even experts can err, he may have been in error. None of this supports a conclusion of dishonesty which must rest almost reluctantly on the most compelling indicators.

And at page 128;

"It is most important to identify the particular expertise of each witness so as to pinpoint the specific area in which the witness is qualified as an expert+

Identification of the Particular Expertise

- [27] Hydrology Consultants Ltd are water resources specialists, who focus on water resource policy, planning, appraisal, the development and management of water supply sources and drainage studies, professional geological mapping and a limited range of engineering geology services. Its report describes itself as, "the main provider of water resources consultancy services within the Jamaican economy. There are two full-time professionals, Michael White and Ivan I. Lowe, Ground and Surface water Hydrologists, with combined professional experience of over 70 years. They have part-time professional support in water and environmental chemistry, agro-meteorology and civil/mechanical/electrical engineering. Mr. White is the Managing Director of the Expert, geologist/hydrologist. He has a Bachelor of Science from the University of the West Indies (Mona), Jamaica, 1972 and M.Sc. & Diploma in Hydrogeology from the University College, University of London. Hydrologist has long experience in surface and ground water.
- [28] Mr. Poorman, Consultant Engineer, has a Bachelor of Science in Agricultural Engineering from the Israeli Institute of Technology, and post graduate work at the University of British Columbia, in Civil Engineering, specializing in

Environmental Engineering, gaining M.Sc. Mr. Poorman has experience in design of sewage treatment facilities, water supply systems and drainage systems. Counsel for the Claimant submitted that the nature of the case demands more the expertise of the civil engineer, than a hydrologist, as it turns on the issue of the design of the detention pond. It was noted that Mr. Poorman had knowledge of hydrology. It is a submission that I accept.

The Nature of the Case

[29] The Claimant had alleged, that a pond to hold and store water was built by the Defendant on its land, overflowed and flooded the Claimant's property. The negligence of the Defendant was particularized, that the Defendant had failed to construct or erect a pond to prevent water escaping, or failed to keep the same so as not to permit water from escaping there from. That there was a failure to inspect the pond. There has been no challenge to the evidence that the Claimant's property had suffered damage on the dates alleged. The contention was whether the water that caused that flooding was a result of an overflow from the western pond. If it were, was that overflow a result of a breach of a duty that the Defendant owed to the Claimant? Was the problem foreseeable as noted in the Keir Report? In constructing the pond, was the Defendant negligent and did this negligence cause loss to the Claimant?

[30] The Defendant's case is that the construction of the stormwater detention drainage system was designed as a flood protection system to reduce the impact on neighbouring properties of runoff from surrounding area and overflow of water from the roads and lots and not for the purpose of storing water. The system was inspected and maintained on a regular basis by the Environmental Health and Safety Management Department.

Defendant's Case

[31] It was further submitted that the Defendant did nothing to materially increase or change the direction of the flow of the surface water runoff from the subdivision.

In developing its land, it took positive steps to ensure that the impact of the runoff of surface water on the neighbouring lands was reduced. The Defendant did all that was reasonable to expect of it in the circumstances.

- [32] The issue is whether the flood was attributable to the Defendant's failure to take reasonable care to erect and maintain their detention and drainage system resulting in damage to the Respondent's property. Did the Defendant owe a duty of care to the Claimant, whose property adjoined the Defendant's property?

Negligence

- [33] A party is under a duty to take reasonable care to avoid acts and omissions which can reasonably be foreseen as being likely to injure his neighbour. In **Jamaica Public Service v Winsome Patricia Crawford Ramsay, SCCA17/03, delivered on the 18th December 2006**, the Claimant had sued in negligence to recover damages for the destruction of her home by fire, which she alleged started on the Defendant's wires as a result of their negligence. The judgment of Harris JA, after noting the diversity of approaches adopted in the determination of the existence of the duty of care which one party owes to another, stated that the approach and the test in imposing a duty of care, are as follows;

These are (a) foreseeability of damage as a consequence of the negligent performance of an operation; (b) the existence of sufficient relationship of proximity between the parties and (c) whether it is fair and just that a duty be imposed.

The test in imposing a duty was propounded by Lord Bridge in the case of **Caparo Industries plc v Dickman** (1990) 1 All ER 568 at page 572 in this way:

"In determining the existence and scope of the duty of care which one person may owe to another in the infinitely varied circumstances of human relationships there has for long been a tension between two different approaches. Traditionally the law finds the existence of the duty in different specific situations each exhibiting its own particular characteristics. In this way the law has identified a wide variety of duty situations, all falling within the ambit of the tort of negligence, but

sufficiently distinct to require separate definition of the essential ingredients by which the existence of the duty is to be recognized."

At pages 573 and 574 he went on to say:

"What emerges, is that, in addition to the foreseeability of damage, necessary ingredients in any situation giving rise to a duty of care are that there should exist between the party owing the duty and the party to whom it is owed a relationship characterized by the law as one of 'proximity' or 'neighbourhood' and that the situation should be one in which the court considers fair just and reasonable that the law should impose a duty of a given scope on the one party for the benefit of the other".

A court on its inquiry into foreseeability must consider the nature of the relationship of the parties and must be satisfied that in all the circumstances it is fair and just to assign to a Defendant a duty of care. The ingredients of foreseeability, proximity and fairness, are inextricably interwoven in establishing a duty of care. See *Caparo industries plc v Dickman* (supra).

Sufficient Relationship of Proximity

[34] The Claimant had lived and farmed in that location for over thirty years. The parties were adjoining neighbours. The terrain in that area was deemed to be flat and in a depression ringed by hills to the North. Ms. Ulrica Edwards had testified that the Toll Gate, Osbourne Store area was prone to flooding prior to 2002, albeit that floodwater, on her evidence, would only rise to her ankle. The Defendant had cleared vegetation and had subdivided the area into some 104 residential and farm lots.

[35] The Defendant had constructed two ponds, in respect of the Western Pond, it was about 6 feet deep, was spread over an area of approximately three acres, and stood about seven feet above ground level; the excavated material amounted to 15,400,000 gallons or 20.5 million cubic feet of earth. The purpose of this pond, in the words of Mr. Hall, was to receive and hold+run-off from the

area. It was to ensure that there would be adequate storage of water. I find that there was a relationship of proximity or neighbourhood between the parties.

Foreseeability of Damage

- [36] Was it in the reasonable contemplation of the Defendant that a want of care on its part would result in damage to the Claimant? The Keir Report indicates that the problem was foreseen by the Defendant earlier on in the project; the main areas of concern were that the size of both ponds could not handle the volume of water being collected by the existing drain network.
- [37] The construction of a detention pond as a part of managing surface water run-off does not as a rule create a danger as would cause damage to the Claimant's property. If the Defendant, by carelessness, causes the pond to constitute a danger causing damage to the Claimant and there is proof that the Defendant did not exercise due care to prevent the damage, then the Defendant would be liable.
- [38] Counsel for the Defendant, in written submission stated that the Defendant did nothing to materially increase or change the direction of the flow of surface water runoff from the subdivision. It took positive steps to ensure that the impact of the runoff of surface water onto the neighbouring lands was reduced. The Defendant did what it was reasonable to expect of it in the circumstances. Counsel relied on **Leaky and Others v National Trust for Places of Historic Interest or Natural Beauty {1980} 1 All Er. 17**. The Defendants owned lands on which stood a conical hill in close proximity to the Claimant's land on which were dwelling houses. From time to time, through natural weathering, there would be slippages of material from the hill. A long period of drought opened a crack in the hill which was brought to the attention of the Defendant by the Claimant. The Defendant responded that he had no obligation to do anything. Weeks later, there was a large fall of the bank onto the land of the complainer. The Defendant refused to undertake the cost of clearing the land and the institution of protective works. The Plaintiffs issued a writ (there was no express pleading in negligence),

seeking an injunction for the Defendants to clear the land, to prevent future falls of earth. The judge held that the Defendants were liable in nuisance. The Defendants appealed, contending that there was no liability owed to an adjoining owner where natural mineral material encroached or threatened to encroach onto adjoining lands causing damage. A further contention was, if there were a liability, it was in negligence and not in nuisance.

General Duty of Occupiers

- [39] The Court of Appeal, in dismissing the Appeal, held that, in relation to hazards on the land, under English Law, there was, both in principle and on authority, a general duty imposed on occupiers in relation to hazards occurring on their land, whether the hazards were natural or manmade. A person on whose land a hazard naturally occurred, whether in the soil itself, or in something on or growing on the land, and which encroached or threatened to encroach onto another's land thereby causing or threatening to cause damage, was under a duty, if he knew or ought to have known of the risks of encroachments, to do what was reasonable in all the circumstances to prevent or minimize the risk of the known or foreseeable damage or injury to the other person or his property, and was liable in nuisance if he did not.
- [40] The case offers no support to Counsel's submission. Firstly, I do not agree that there was no material increase or change brought by the Defendant in the direction of the flow of surface water. Secondly, the judgment in **Leaky** makes clear that hazards occurring naturally and without the intervention of the owner/occupier placed the owner under a duty, *if he knew or ought to have known of the risk of encroachment*. Shaw LJ, with what his Lordship describes as *diffident reluctance* and being impressed with the line of cases that Megaw LJ had examined, concurred in the dismissal of the appeal. The point that had troubled Shaw LJ was *in regard to the liability of a landowner for a nuisance arising on his land independently of any human intervention*.

[41] The Court of Appeal, in *Leaky*, relied on the persuasive authority of the Privy Council decision in **Goldman v Hargreaves** {1966} 2 All. E.R. 989, which expounds the general principle in the law relating to the liability of a landowner for nuisance. Megaw LJ, Page 26 of the judgment in *Leaky*:

The judgment of the Board then goes on to review the development of the law which, as the Board held, had changed the law so that there now exists a general duty on occupiers in relation to hazards occurring on their land, whether natural or manmade.+

The case repudiates any necessity for a resolution of the jurisprudential distinction between negligence, with its requirement for a duty of care with that of nuisance with the absolute requirements as in the law of nuisance.

Extent of the Occupiers Duty

[42] The extent of the occupiers duty is amply illustrated by **Sedleigh-Denfield v O'Callaghan** {1940}3 ALL ER 349. A trespasser, a local authority, had improperly placed a grid at the mouth of a culvert on the Defendant's land. The Defendant came to know of this through his servants and did nothing about it, although that could have been done without any great trouble or expense. The Court acknowledged that the duty cast upon an occupier may be onerous, and beyond his means. The scope of the duty is to do that which is reasonable in all the circumstances, and no more than that. Some of the factors for consideration as to the reasonableness of the actions are (1) The extent of the risk. (2) What can reasonably be foreseen as the consequence of the risk. (3) Is it practicable to prevent or minimize the happening of any damage. (4) How difficult, how long would it take and the cost involved. (5) Is there sufficient time to undertake the preventative work? (See **Leaky v National Trust**, pg 35, letter (d-g)) and at later pg. 37, letter g:

The question of reasonableness of what had been done or offered would fall to be decided on a broad basis in which on some occasions, there might be included an element of obvious discrepancy of financial resources. It may be in some cases the introduction of this factor may give rise to difficulties to litigants and to their advisers and to the courts.

But I believe that the difficulties are likely to turn out more theoretical than practical.+

[43] It is clear that there were concerns expressed about the Western Pond in the earlier stage of the project that had been manifested during the period 22nd to 24th May 2002, the period of the heavy rainfall. The concerns that were so expressed pertained to the size of the detention ponds to handle the volume of water being collected by the existing drain network. The Western Pond, according to the report of Ricardo Hall, not only collected water from the western side of the property, but also collected water from the main road. It was the Defendant that was responsible for the construction of the detention pond on its property. The Defendant had knowledge that the pond was unlikely to be able to handle the volume of water from the existing drainage system. The Hydrologist Report highlights the improbability of the incremental runoff of 32,000 m³ being accommodated in additional storage volume of 30,000 m³ created by the Western Pond.

Whether it was fair and just to impose duty

[44] The Defendants had developed an area of approximately 400 acres by putting in some 104 lots. The Claimant had taken such reasonable steps that she could take. There was a concrete wall bordering the Defendant's property, with ~~weep-~~holes+. The damage that was likely to the Claimant and the surrounding areas made it practicable for the Defendant to take such steps to prevent and minimize the potential damage. These concerns had been expressed earlier in the project and clearly there was adequate time within which to address those concerns. It would have been reasonable for the Defendant to have addressed those concerns.

[45] Mr. Richard Hall, Civil Engineer, Capital Programme Manager, had been involved in the design stage of the development. In a written report made in respect of his site visits of the 2nd and 3rd October 2002, he admitted that the Eastern Pond had a runoff generated by the two meteorological systems far in excess of what could

be maintained, therefore resulted in flooding of subdivision roads. He denied that the Western Pond had overflowed. His Report stated:

%6 in fact the water had risen high enough from the pond to do damage to the chicken farm, i.e., an additional two to three feet to overtop the existing west wall, or flow through the weep holes in the north wall, the entire community would possibly have been flooded as the area of spread, i.e., land area covered would have been enormous.+

[46] In his cross-examination, Mr. Hall said, the detention ponds were built to capture the flow from the subdivision in a ring drain, roughly circular drain, essentially these ponds were to receive and hold runoff water in the area. It was to ensure that there would be adequate storage of water. Mr. Hall's evidence is inconsistent with the Addendum Report submitted by Hydrologist Consultants in respect of the Claimant's allegations of flooding the 1st October 2002. The Hydrologist Consultants' findings, based on their modelling, confirmed that there would be both a pre-developmental and post development *overflow of the excess* from the western detention pond around the date the Claimant alleged. I prefer the opinion in the Hydrologist Report on this point, to that of Mr. Hall.

[47] The Hydrologist Report noted that the total rainfall accumulated during the 17th September to the 30th September 2002 was 143.7 mm and evaporation was 50mm. Seepage was conservatively estimated to be nil. This point we shall return to in due course. The reports cite that data indicate a net increase in storage within the depression (detention pond) of 97.3 mm increasing storage to 134,000 and 150,000 m³ for pre and post development conditions respectively. The addition of 102,000 and 119,000 m³ generated by rainfall on the 29th September would have the effect of increasing the water level well in excess of 41m amsl, water level elevation in both pre and post development. The consultants conclude in both scenarios, the Claimant's chicken houses would have been completely flooded.

[48] It is safe to conclude that the ponds failed to provide for the adequate storage of water for which they were designed, according to the testimony of Mr. Hall. Mr.

Hall had been involved in the design stage of the development. The elevation of surface water within the detention pond exceeded 41.0 m amsl, whereas the Hanson Chicken houses surface water elevation was at between 39.56 and 40.94m amsl. The Report notes that in respect of the 18th September 2002, there was an incremental 20,000 m³ of run-off generated by the housing subdivision which was to be accommodated within the increased storage capacity of 30,000 m³ created by the construction of the stormwater retention pond.

[49] The Hydrologists had no objective means of determining seepage loss from the pond for the period of 10 days, from the 19th to the 28th September, which was estimated at nil. The expert submitted an Addendum Report which dealt specifically with the October 2002 flooding. Instructing Attorneys had not requested a report in respect of that date until the 4th June 2010, the day after the receipt by them of the first report.

This Addendum Report said of the sinkholes, although they were active, they were largely filled with sediment and vegetation litter, implying partial blockage and relatively low seepage rate. The earlier report also described the sinkholes as active, and said, ~~they~~ they were filled with dry vegetation litter, but formed the focus of natural, shallow surface water drainage channels indicating that they received and disposed of water ponded in their associated depression. The hydrologist did not say what constituted the sediments, or explain the reason for the presence of sediments of the latter report.

Neither is there an explanation for the difference in conclusion of the sinkholes' ability to dispose of water, as evidenced in the two Reports. Mr. Poorman had testified that the sinkholes had the excavated material poured into them. What is clear, although these sinkholes were described as active, they allowed little or no seepage over a ten-day period, according to the Addendum Report. The development itself, for reasons which were not raised before me, caused an increase in the surface water runoff. As was noted in paragraph 48, there was an incremental increase of run-off generated by the development of the housing

division as a result of rainfall on the 18th September 2002. Mr. Poorman's view was that the removal of the vegetative cover had increased the surface water runoff, and had gone further to state that building of more homes in that area will lead to a further increase in surface water runoff.

[50] The Experts differ on pre development flooding in the area. Mr. Poorman is of the opinion that prior to the development, there was no flooding of the magnitude complained of in the area of Osbourne Store. The witnesses that were called support that conclusion. There was one major rainfall event in 1986. Although bridges were washed away in the Toll Gate area, the location of the farm in Osbourne Store was largely unscathed. What was explained by one of the witnesses as ~~being~~ prone to flooding, was described as water reaching to her ankles, a totally different event from what the Claimant is alleging. I was impressed that often in times of flooding in other areas, the Edwards property was used as a safe zone for organizations such as the Jamaica Red Cross. Having seen the witnesses and their reaction to cross-examination, I accept the evidence of the Edwards and the Claimant on that point. I also accept Mr. Poorman's evidence that prior to the development, there was no flooding of the magnitude of the events complained of.

[51] Both experts are agreed that there were floodings at the Claimant's property on the dates Mrs. Hanson alleged. On the matter of an overflow facility, Mr. Poorman's finding on this point that there is no overflow facility is supported by the Keir Report. The Hydrologist is silent on the point. Mr. Poorman is a civil engineer who has experience in designs. Mr. Poorman's Report did not contain the rainfall data that Hydrologist Report did, however, it was never an issue that there was heavy rainfall. Mr. Poorman's Report and testimony was more helpful in understanding the dimensions of the detention pond and its relationship to the drainage system in the area. The evidence of Mr. Poorman has been supported in material areas by the Keir Report and the testimony of the Claimant and the Edwards. I accept the evidence of Mrs. Ulrica Edwards, that in respect of her Church and home, both foundations, sit right on the ground, with the front steps

being about six inches off the ground, these buildings have been there for the first 30 years without any flooding prior to the development. Where there are conflicts between the evidence of the experts, I prefer the evidence of Mr. Poorman.

Smoke

- [52] The Claimant gave evidence that on the 1st June 2004 agents of the Defendant lit a fire which caused thick and heavy smoke to come from the Defendant's property onto the Claimant's land, resulting in the death of 1,800 birds, those birds were valued at \$59,400. She spent a further sum of \$7,000 to clean up the ashes and effects of the smoke. Although she had experienced smoke before, she had made no complaint to the Defendant. In cross-examination, she said she had not seen what caused the fire that engulfed the entire playing field. There is no dump or garbage deposited over there, had not seen any Alcoa, workmen over there. She had called the Fire Brigade. She admitted that in January 2005, she had complained that she had lost 1,800 in respect of loss from smoke, that in 2004 she would get \$21 per bird.

Dust

- [53] On or about the 4th or 5th January 2005, the Claimant, in her written statement, said she saw men with heavy equipment involving earth moving, land clearing and creating a great amount of dust onto her land and settling in her house and damaging the contents of her house and workmen's cottage. She spent a sum of \$7,000.00 in the cleanup effort. Mr. Ferguson, called by the Defendant, said land clearing would not be necessary in the area adjacent to the Claimant's property. That area had been used as a recreational area and therefore would not have needed clearing-up by heavy equipment which the Defendant doesn't use for these purposes.

Nuisance

[54] Whether the acts complained of constitute a nuisance to the Claimant. In 1940, the House of Lords, in **the Sedleigh-Denfield v O'Callaghan { 1940} A.C 880**, Lord Atkin, defined the tort of nuisance as follows;

%o think that nuisance is sufficiently defined as a wrongful interference with another's enjoyment of his land or premises by the use of land or premises either occupied or in some cases owned by oneself. The occupier or owner is not an insurer, there must be something more than the mere harm done to the neighbour's property to make the party responsible. Deliberate act or negligence is not an essential ingredient but some degree of personal responsibility is required which is connoted, in my definition, by the word 'use'. This conception is implicit in all the decisions which impose liability only where the defendant has caused or continued the nuisance.+

[55] The impugned conduct will only be deemed unlawful, if it is unreasonable. A balance needs be struck between the contending rights of the occupier and his neighbour. Lord Wright, in **Sedleigh-Denfield** said:

%A balance has to be maintained between the right of the occupier to do what he likes with his own, and the right of his neighbour not to be interfered with. It is impossible to give any precise or universal formula, but it may broadly be said that a useful test is perhaps what is reasonable according to the ordinary usages of mankind living in society, or more correctly, in a particular society.%o

[56] It is settled that in order to be unreasonable, the interference must not be trifling, or inconsequential, it must be substantial. Unreasonableness is a question of fact in the determination of which should be considered the time, place, manner of commission, the permanence or intransitory nature of the effects of the interference upon the Claimant.

[57] The duration of the interference is a relevant factor in determining whether the interference is trifling or substantial. There is a lack of evidence that occupier had any responsibility for the interference. I am inclined to the view that the interference complained of on both occasions was trifling and not substantial. In

so concluding, I take into consideration the evidence before this court on the location of the farm, the manner of commission, whether the effects are transitory or permanent.

Damage

[58] The Claimant claims damages for the birds and livestock lost as a result of flooding on the three occasions. She claims also for the reduction in the number of flock Jamaica Broilers would place on the premises, as also for damage to household furnishings to both her home and the accommodations for her workers. She testified that she earned \$7,000,000 per year gross based on an average yield of over \$990,000 per crop of birds, each crop consisting of 30,000 birds at \$30 per bird. She did seven crops per year. She had a contract with the company from 1976. The terms of that contract was not placed before the court. She was reduced to 3 crops per year after 2002; no more birds were placed with her after the flooding in June 2005. She admitted in cross-examination that she averaged 27,147 birds per flock and six flocks per year. She said she had lost 17 goats, 12 pigs and 6 cows. The cows were young cows, two to three years old. She said she could get half million dollars for three goats, it had been suggested that 5 or 6 goats would not be valued as much as half million dollars. Up to June 2005, she was getting \$21 per bird. She said she had no bank book or any record to prove an income of \$7m per annum from the birds.

[59] In relation to the 23rd May 2002 flooding, she said she lost over 30,000 birds at a rate in excess of \$990,000.00. According to the Claimant, the birds were five weeks old and would have been ready in another week when they would fetch \$33 per bird. The value of the livestock was in excess of \$1,000,000.00. She estimated her total loss in respect of the May 2002 event at \$6,000,000.00. Shown exhibit (1), she said the number of birds washed out in October 2002 were 24,300. She admitted that the cooler months were the best period and whenever it is hot, the company would reduce the number of birds. She agreed

that the largest flock in the book noted as having received is 27,700. The price paid is dependent on weight of birds.

[60] On the 1st October 2002, all 30,000 birds were lost by the complete flooding of the chicken houses. Her residence was however spared. Her workmen's cottage was damaged including its furnishings. She estimated her total loss at \$17,000,000.00.

[61] On the 12 October 2005, her loss was 30,000 birds and farm animals. She quantified her loss at \$990,000 for the birds and \$500,000.00 for the farm animals. The damage to her residence she estimated at \$550,000.00. In cross-examination, she said she had to change her drapes. She suffered structural damage such as tiles.

[62] In 2002, a decision was taken not to place birds with the Claimant during Hurricane Season. The decision of Jamaica Broilers in 2002 was based, as I understand it, on the fact that two floodings had been sustained by the Claimant over the period of twenty six years that she had had birds placed with her. One of those occasions was within the hurricane period, the October event. In any event, the Claimant has laid claim for destruction of a flock during the hurricane season, some three years after Broilers had taken the decision.

[63] What brought the agreement to an end in 2006, a year when there were no events? The Records indicate that after the last event alleged in 2005, the Claimant produced, in the year 2006, albeit at a reduced number of flocks not dissimilar to the year 2002, when she was affected by flooding. If the chicken houses were able to produce after the last event claimed for in October 2005, what caused the damage that has resulted in their claim for a total loss of the chicken houses?

[64] The Claimant has testified that the cost of replacing the three poultry houses is in excess of \$16,000.00. The Hydrologist Report opines that the post-development flooding would cause complete flooding in the chicken houses. Mr. Bailey, an employee of Jamaica Boilers, gave evidence of the financial outlay involved in

the operation. He opines that there were three chicken houses, each of 19,000 square feet, with a capacity of 10,000 chickens. Cost of the house is \$18,000,000.00. A claim for the replacement cost of these houses for an award of \$36,000,000.00 has been made. The Court has evidence that the houses operated at a reduced level in 2006, after the last flooding. I therefore make an award of \$10,000,000.00 for restoration of the houses.

[65] I make the following awards:

(1) For birds lost in the three flooding events at an average flock of 27,140 at \$21 per bird.	\$1,709,820.00
(2) Livestock (17 goats, pigs, 6 cows)	\$1,000,000.00
(3) Restoration cost of chicken houses	\$10,000,000.00
(4) Loss of contract at an average of 6 flocks per year	
(a) 2002 4 at 19.59 (27140 x4 @19.59)	\$2,126,690.40
(b) 2003 3 at 13.74	\$1,118,710.80
(c) 2004 3 at 13.64	\$1,110,568.80
(d) 2005 3 at 8.40	\$ 683,928.00
(3) 2006 4 at 16.94	\$1,839,006.40
(5) Contracts for years 2007 . 2010 (27140 x 6 x 4 years x 16.94)	<u>\$11,034,038.00</u>
Total Award	<u>\$30,622,762.40</u>
(6) Interest on the above at the rate of 3% from October 2, 2008 until October 18, 2012.	
(7) Costs to the Claimant to be taxed if not agreed.	