IN THE HIGH COURT OF SOUTH AFRICA

GAUTENG LOCAL DIVISION, JOHANNESBURG

CASE NO: 2011/40551

DELETE WHICHEVER IS NOT APPLICABLE

(1) REPORTABLE: ~~YES~~/NO
(2) OF INTEREST TO OTHER JUDGES: ~~YES~~/NO
(3) REVISED:

.....19/7/2017..... .....
DATE SIGNATURE

In the matter between

ALLAN ROGER LANE	**FIRST PLAINTIFF**
SUSAN CLAIRE LANE	**SECOND PLAINTIFF**
VALERIE ANN HARBOT	**THIRD PLAINTIFF**

And

EMFULENI MUNICIPALITY	**DEFENDANT**

J U D G M E N T

SIWENDU J:

INTRODUCTION

[1] This case concerns the probable cause of inexplicable flooding of water which led to the damage of a dwelling erected on the plaintiffs' property. The plaintiffs are joint owners of an undivided one-third share of the property fully described as Portion […], Registration Division IQ, colloquially known as […] or stand […][1] ("the property"). The property is located on the waterfront of the Vaal River ("the river") and runs from […] Avenue at the top to the river at the bottom. Until 2008, the property had a residential dwelling located approximately 30 meters from the river ("the old dwelling"). The plaintiffs inherited the property from the second plaintiff's father. The property is used as a family holiday home and the family have enjoyed the use of the property for over 50 years.

[2] In November 2011, the plaintiffs instituted an action against the defendant arising out of damage to the old dwelling. They allege that following tarring of the roads, the defendant had negligently and/or, wrongfully designed and constructed an inadequate storm water drainage system at the corner of I. Road and P. Avenue which caused flooding on the property.

[3] The plaintiffs allege that:

[1] Bundle C2, an aerial photograph, depicts the location and layout of the property.

[3.1] The design of the storm water drainage system was ineffective and inefficient. It failed to disperse accumulated water without causing damage or disperse the accumulated stormwater and run water off efficiently without causing damage to the plaintiffs' property and neighbouring properties;

[3.2] The defendant failed to exercise reasonable care in its construction of the drainage system as was expected of the defendant in accordance with its obligations in terms of the Municipal Structures Act 58 of 1999;

[3.3] With proper research, use of contour maps and investigation of the nature of the soil, the defendant ought to have seen that there was a clay embankment underneath the soil of stands 63, which limited absorption of water and diverted water from the storm water drain flowing to the river; and

[3.4] As there was a high water table, more water was added causing it to pull upward underneath the property.

[4] The defendant disputes liability on the grounds that the claim has prescribed. In addition, it alleges that the plaintiffs failed to give it timeous notice of the claim as required by Section 3(1) of the Institution of Legal Proceedings Against Certain Organs of State Act 40 of 2002 ("ILPACOS"). The defendants submit that the plaintiffs:

[4.1] Gained knowledge which indicated for the first time that the defendant could be blamed for the problem as early as March 2010; and

[4.2] They had acquired reasonable constructive knowledge at that stage of the problem, and, the claim against the defendant the moment the plaintiffs decided to demolish the old dwelling in 2008; and yet, the Notice was given some 60 months later in August 2011.

[5] In addition to the procedural grounds in paragraphs 4.1 and 4.2 above, the defendant disputes that it acted negligently and/ or wrongfully; and:

[5.1] disputes the drainage system was inadequate for the conditions for which it was installed or that it was installed negligently.

[5.2] The defendant maintains that the source of the water seepage had not been established and that the source of the water which damaged the property could have been from a variety of factors other than from the rain.

BACKGROUND AND COMMON CAUSE FACTS

[6] The property[2] falls within the jurisdiction of the Municipality, the defendant. The geotechnical map and layout plan depicts[3] that S. Road and I. Road lead to P. Avenue ("the roads"). The roads slope on a gradient with a moderate slope towards the river[4]. The corner of P. Ave and I. Road is the lowest point for the deposit of water and the gradient from thereon slopes down towards

[2] S. Road, I. Road and P. Avenue.
[3] Notice Bundle, p53; P 56 and Bundle D; pp45 and 46
[4] Bundle C2

the river. The river, which flows from the left to the right in relation to the property is located at the lowest point relative to the roads.

[7] From the entrance of P. Avenue, the property mirrors the same gradient but flattens near the Vaal River where the old dwelling was located. The property is surrounded by stands 58, 60 and 63. Stand 63 is owned by Mr Alan Green ("the Green property").

[8] Prior to 2006, the roads were made of gravel and were constructed with grader using *in situ* gravel material on top of the natural ground. There was no official drainage system. P. Avenue was shaped into a camber[5] with v-drains[6] cut on the sides of the road. The camber enabled the water to run-off quickly. Rainwater from the higher end of the roads would collect and drain at the corner being the lower point flattening out onto the Green property draining past the precast concrete wall towards the river[7].

[9] The roads were subsequently surfaced[8] by the defendant following complaints by residents in a project in which some of the residents including the plaintiffs financially contributed. The appointment of the contractor was undertaken by the defendant through its legal department. Construction was

[5] Camber of a road means that the road was raised higher at the centre but with the side edges lower to enable the water to run off quickly.
[6] A V- Drain created from a compacted structural layer of the road.
[7] Evidence of Mr Squirra and Mrs Lane in part.
[8] Surface and tarred are used interchangeably.

completed in 2007. All construction projects of public roads are council projects even though there was a co-funding arrangement with residents.

[10] As part of the project, a stormwater drain ("the initial stormwater"), approximately 450mm in diameter, was installed at the corner of I. and P. Avenue. The stormwater drain daylighted[9] on the Green property at the top of the property. At the point where the storm-water drain daylighted, a channel was constructed to discharge surface water flow onto the Green property. To this extent, the storm water drain did not discharge and/or deposit water directly to the river but onto the Green property. The defendant had a servitude over the portion of the property on which water discharged.

[11] Water was observed by the plaintiffs seeping from the boundary fence of stand 63 to the right of the property on the river side of the property from the latter part of 2006 until 2007. The water gradually started to move upward towards the old dwelling.

[12] During the latter part of 2007 between September or October, water overspilled the edges of the channel created after heavy rains. A dispute ensued between the defendant and Mr Green because the water flooding

[9] Daylighting means the point where storm water pipe surfaces to discharge water

affected Mr Green's Septic Tank. Undesirables were found on Mr Green's lawn, and Mr Green blocked off the drainage system as a result.[10]

[13] In December 2008, the plaintiffs demolished the old dwelling. They alleged that the decision to demolish the old dwelling was because of damage caused by consistent flooding and seepage of water which rendered the old dwelling inhabitable and dangerous to live in. Following the demolition, and as replacement, two separate dwellings were built on stilts on the upper section of the property.

[14] In 2010, another storm water drain of approximately 1500mm/1.5m in diameter together with 3 catchment areas was built by the defendant on the southern side of the P. Avenue ("the second storm water drain"). The storm water discharged water directly to the river. Joint Minutes show that all the experts are in agreement on the geological formations in the area which included sandstone, shale and coal Vryheid formations, amongst others. They agreed that there is a sandy soil dyke even though its extent and exact location could not be determined in relation to the other properties. Sandy material was intercepted when auger holes were drilled.

PROCEDURAL MATTERS

[10] Evidence of Squirra.

[15] Three procedural issues which required determination prior to hearing of evidence were raised at the commencement of the proceedings; namely:

[15.1] The parties requested that I should determine the merits of the claim separately from the quantum of damages. Accordingly, the matter proceeded on merits only;

[15.2] Secondly, the plaintiff and the defendant moved an application to conduct an Inspection in Loco. I ruled that a determination of this application would be made once all expert evidence has been heard. Following the evidence, I ruled that I had been sufficiently assisted by the experts, and accordingly, refused the application; and

[15.3] The third issue related to the determination of the defence of prescription raised in terms of the Prescription Act 68 of 1969, as well as a decision on the application for condonation for the failure to give notice of legal proceedings required in terms of ILPACOS. The plaintiff submitted that in view of the complex facts and the technical nature of the evidence required, it was not easy to determine the cause of the damming of the water on the property and/or when the plaintiffs acquired knowledge of their cause of action and/or claim against the defendant.

[16] After hearing submissions by both parties, I determined that the question of the plaintiffs' knowledge of when the claim arose was inextricably linked with the factual and expert evidence to be led. There will be no prejudice to any of the parties, and, the interest of justice would best be served by hearing the

evidence prior to determining the issue. In the circumstances, I determined that the decision be held over to the end of the trial so that I be acquainted with the subject matter of the dispute and merits of the claim. Accordingly, I ruled that both these questions be held over to the end of the trial.

PLAINTIFFS EVIDENCE

[17] The plaintiffs called three witnesses:, Mrs Lane, the second plaintiff who testified on behalf of all the plaintiffs as well as two expert witnesses, Dr Ofer and Mr Tobias respectively.

[18] Mrs Lane testified that, until 2006, there had never been flooding on the property other than an incident in 1976. The Rand Water Board erroneously shut the barrage gates of the Golden Dam, leading to river breaching its banks. However, water had drained within the week once the gates were opened.

[19] In 2005/6, residents formed a Residents Roads Committee in a project to tar the roads to address complaints and enhance the value of the real estate. The plaintiffs, together with other residents, contributed towards the construction

project jointly[11] with the defendant. The Residents Roads Committee dealt with the defendant as a result, she was not involved in the details of the plans and/or diagrams. She had no knowledge of who was responsible for the design of the storm water drain.

[20] After the completion of the construction of the roads in 2007, when standing in front of the old dwelling facing the river, they noticed water seeping from the right-hand side along the fence (being the section on the side of stand 58). Each weekend when they went to the property, water would have moved by approximately half a meter. At the time, they did not know the cause or source of the water.

[21] The river flows from left to right while the water creep was flowing from the right to the left (which is the opposite direction of the water seepage). However, once the water reached the boat houses, it curved and moved towards the old dwelling and started receding towards the house in a steady slow creep which was not on a straight line.

[22] At first, there was damp on the old dwelling. The damp extended to the roof and later caused the floors to separate. Eventually, there was flooding of the

[11] Municipality contributed R450k; p12. I. Update 7

surface of the dwelling until they were ankle deep in water.[12] After a particularly bad storm they felt bombarded by water from the front and the back of the old dwelling. Household furniture had to be placed on pallets to avoid water.

[23] It was dangerous to live in and began to smell. Her sister-in-law, who was in her eighties, had developed bad asthma. They could not ascertain the cause and source of the water. At the time, there was speculation that it may be due to the rain or that the reeds were causing the rising water levels. On or about 31 October 2008, as joint owners of the property, they had written to Mutual and Federal[13]. Mutual and Federal merely noted their letter and had instead attributed it to wear and tear. The plaintiffs referred Mutual and Federal to the Insurance Ombudsman. Their case was closed unresolved by the Ombudsman[14]. A decision to demolish the dwelling was taken in 2008 and the old dwelling was demolished in 2009**.** The plaintiffs had built two houses on the upper end of the property on stilts.

[24] An inquiry by their neighbour, Mr Rippen, the owner of stand 60, in 2008 who was at first holding the plaintiffs responsible for the water flowing onto his property led to further speculation about the cause. There had been a rich smell of mud which was initially thought to emanate from the French Drains. After an inspection, speculation was that the reeds were the cause of the

[12] Bundle A p41 - 44 shows photographs of damp walls and of water on the ground as well as water up the wall.
[13] Bundle A p 16
[14] Bundle A p 98

water from the river to rise. Trees had to be removed as they had died from overexposure to water[15]. There was further speculation that the duck pond on Mr Green's property was the cause. The plaintiffs had also discussed the matter with a representative from the Rand Water Board who was of the view that the water was attributable to a higher than usual water table.

[25] The plaintiffs had employed a contractor to install underground piping with a large submersible pump. Water subsided for a while but did not alleviate it. They built channels where the water was running from the back of the house to get water out of the new homes[16].

[26] Mrs Lane testified that from about December 2009, it transpired that there was a conversation amongst residents about a residential security project that she had not been aware of. On or about 18 January 2010, she was copied to email correspondence pertaining to the security project. Mrs Lane, who had been quite meticulous in keeping correspondence, had documented this correspondence[17] and exchange in emails included in the bundles[18] before the court.

[27] She testified that it was only in January 2010 during the course of these exchanges that they became aware that water which led to the demolition of

[15] Bundle A p 73
[16] Bundle C pp C 27, C 39 and C 34
[17] Pages 99 - 101 documents email exchange including that of Manager Roads Municipality
[18] Bundle B p 101 - 131

their old dwelling had affected other residents. She had ascertained this from correspondence between Mr Green, Mr Ernie Strydom of Emfuleni Municipality and Mr Storm, the owner of plot 99. She had not been privy to the initial communication. The following timeline of event is apparent from her evidence and the emails:

[27.1] It transpires that on or about 5 January 2010, Mr Storm had complained about damage to his property because of the closure of the water channel by Mr Greene due to a lack of maintenance of the servitude by the defendant.

[27.2] On or about 11 January 2010 Mr Strydom of Emfuleni responded to this email advising that a tender for the appointment of a contractor was still pending as the prior tender had been rejected and had to be re-advertised.

[27.3] On 18 January 2010, Mrs Lane sent an email in which she mentioned that it is the first time that she has been made aware that the water flooding may be caused by the new road. She also advised that she too was affected by the water problem in addition to the owners of plot 58. She gave a description of the problem as testified, including the initial speculation of the water being attributed to the underground river.

[27.4] On 5 February 2010, Mr Storm advised Mrs Lane that the defendant would be constructing a new pipe which would go down to the river and that it would take approximately three weeks for a contractor to be on site as the tender had been approved.

[27.5] She became privy to a letter dated 5 February 2010 from Attorneys Strauss Scher who were instructed to act on behalf of the owners of plot 63. On 8 February 2010, she attempted to instruct Strauss Scher to act on her behalf. They declined the mandate and directed the plaintiffs to the Johannesburg Attorneys Association. The association took time to make recommendations get to the plaintiffs.

[27.6] It was only on 24 August 2011, that attorneys Eugene Marais furnished the requisite notice in term of ILPACOS to the defendant.

[27.7] On 23 September 2011, the plaintiffs received a letter from Lion of Africa denying liability on account that the notice instituting legal proceedings had not been sent timeously.

[28] Mrs Lane testified that in January 2011, they were furnished with the report from SRK Consulting Engineering. Two issues in the report caught her eye. The report mentioned rainwater in the sump with particular chemical composition inside. In addition, it mentioned the adequacy of the storm water drain. It was until the commencement of the proceedings and after the engagement of various experts that she realised that the problem of the water is related to the road but until then, she did not know how it was related. The meeting with Advocates briefed to assist the plaintiffs had been pushed to March 2011. Even though they had decided to proceed with the action in May 2011, it was decided to compute damages before proceeding.

[29] After the construction of the new drainage system was completed in 2010, water ponding between I. Road and P. Avenue receded. Water stopped running from the back of P. Ave. They could barely use the property before the new pipes were installed. Even though part of the front of the property was still wet, it is not saturated. Slowly over the years, the back of the property as well as the middle to the front dried out. They built a gazebo with a brick floor where the old dwelling was located and it remains dry. The portion that is damp 3 meters from the river edge. Her evidence was that the property seems to be drying.

[30] She testified that it was only once they saw improvement toward the latter part of 2010, they could develop a link between the drainage on the tar road and the water. When they consulted with attorney Eugene Maree and Stevens, it was a difficult situation to explain. They were advised to get experts. At that stage, she did not know how the tarred road and the storm water drainage were linked. The process of appointing experts commenced late in 2010 starting with surveyors in August 2010 and SKR Consulting in September 2010.

[31] The plaintiff testified that it took them some months to digest the SRK Consultants after they tabled it and to consult with SRK and the attorneys on the contents. Action proceedings were finally commenced in November 2011

[32] During cross-examination, two possible sources of the water flooding, based on the SRK Report, were put to Mrs Lane, namely, that water found on the

sump where the old dwelling was located, and, rainwater coming from the back of the property**.** Her evidence was that rain water from the sump did not surprise her due to the amount of water that had come from P. Avenue. She confirmed under cross-examination that the decision to demolish the old dwelling was based on two considerations, the health of her sister in law as well as the fact that the property became dangerous to live in. Construction of the new dwellings commenced in the middle of 2007.

[33] Even though she submitted the application for demolition of the property, she could not confirm whether she advised the defendant that the dwelling had become structurally unsound. It was put to her that once the view that the old dwelling was structurally unsound was formed, they had a duty to inform the local authority. She testified that she did not know that there was any law requiring notification except to put an application to demolish the property. She testified that she would have stated the reasons for demolishing if this was sought on the application form. The plans submitted for approval which included the building of a Lapa on the same area where the old dwelling was located even though it had been unsafe and unstable were put to her. The Lapa had not been built at that time but at different stages.

[34] The plaintiffs were criticised for not involving architects to investigate prior to the demolition thus depriving the defendant the opportunity to inspect the property. Mrs Lane testified that up until the demolition of the old dwelling and part of 2010, they had been dealing with their insurers and not the

municipality. The decision to demolish occurred before they knew they had a potential claim against the defendant. When they were flooded by water, she did not believe they needed experts at the time. She had tried to mitigate and obtain information from the insurance and the water board as referred to in email trails.

[35] It was put to Mrs Lane that all parties concerned had budget constraints and operated within those constraints. She testified that she had not been aware of this including earlier decisions about the location of the drainage system. The finding by Mr Trotsky that there are still elevated water levels was put to her. In her view, this depended on the weather or rain**.**

[36] Dr Zvi Ofer, a qualified Geotechnical Engineer, with a BSc (Eng), a MSc (Eng) obtained from Tefion University, Israel in 1965 and 1969 respectively as well as a PhD from the University of Witwatersrand, who specialises in geotechnical, soil water structure interaction, ground water and civil engineering building structures was called to testify as an expert. He was briefed to formulate an opinion on what caused the flooding on the plaintiffs' property. He had prepared the report dated 20 November 2013 [19] His investigation was conducted three years after the construction of the second storm water drain.

[19] Dr Ofer's Report in Bundle D Expert[19] p 85 - 88

[37] He testified that on his visit to the site, he observed a culvert with a 450mm[20] pipe at the corner of P. and I. Road. The drain channel was installed on the southwestern side, being the downhill side when it should have been on the uphill side with intercepting channels. Other than the culvert on P. and I., no other culverts were evident.

[38] In his opinion, the introduction of the impermeable surfacing/ tarring on the roads increased the water surface flow. While he would not have observed the effects of the old and the new pipe in view of the time lapse, having regards to the geological map,[21] and the volume of water that would flow down I. Road since the tarring, part of the water would seep into the soil as groundwater over time, and part of it would be surface flow. He postulated that if the map of the area was utilised to assess the effects of storm water discharged over time and a rain storm of 10mm was assumed over the area of 600 000 meters, then the net amount of rain that would flow into I. Road and P. Avenue would be approximately 6000 cubic meters**.** This was the equivalent of 100 swimming pools of average size and a considerable volume of water draining into the area.

[39] Considering the gradient of the fall, the 450mm diameter culvert was inadequate for the area. It should have deposited the water to the river.

[40] In order to determine the cause of the flooding, Dr Ofer testified that he had dug 3 small diameter auger holes and five 5 trial holes on various sections of

[20] He had initially referred to a 350mm pipe but was corrected in evidence
[21] Exhibit D p 91.

the property. At the top, he found that at a 2.5m depth, the soil on the northwest boundary section along P. Avenue was slightly moist, with yellow, loose to medium silty fine permeable grain sand. It was damp at the base but no water table was evident even after the holes were made to stand for approximately two hours.

[41] In another trial hole[22] he dug in the middle of where the old dwelling was located, he found clay, silty sandy soil unlike the clean sand found in the other three holes dug at the top of the property. However, at the depth of (1.5m/ 1.7m) below ground level, strong water percolation was observed at the bottom of the hole. Within a few minutes, the side of the wall of the hole collapsed at the bottom because of the flow of water. The direction of the flow of water which came from the southeast, indicated that the soil did not have sufficient cohesion to hold itself.

[42] On excavating this hole, he found topsoil underlain by wet changing grey loose silty clay sand, alluvium[23] and hillwash[24]. His opinion was that the alluvium could have been attributable to the 1976 flooding of the river.

[43] He excavated another hole near the southwest end of the brick boundary wall[25] between stand 58 and 59 to the northwest near the area where Mrs

[22] Referred to as the fifth hole in his report.
[23] Alluvium is material sediments caused by flooding of the river.
[24] Hill-wash is when rain floods the property, it carries with it soil which settles at the bottom.
[25] Figure Between Plot 58 and 59 at the end of the brick boundary wall along the mash fence.

Lane had first noticed water coming from the neighbour's property. There were reeds consistent with existence of shallow ground water. He found ground water at 0.4m below the surface. The soil was of clay silty sand in nature. There was a lot of organic material made of decomposed plants, vegetation and leaves. He associated this with abundance of rubble. He was informed that this was due to a hole dug to dump rubble to create a subsurface drain (French drain) which was done without using bidden[26].

[44] He had noticed a distinct sign of surface water along the boundary brick wall between stand 58 and 59 and variations in the levels of ground water on the property. He testified that the above investigations were conducted after the correction by the municipality and at the end of dry season and the beginning of the wet season.

[45] In addition to the above investigation, Dr Ofer had also made observations and compiled a report with regards to the soil profile of the area and the property using the Geological Map compiled by the Council for the GeoScience[27] to offer an opinion on how the water could have traversed from stand 63 to the property of the plaintiffs'. A further common cause fact and/ or principle accepted by all the experts is that sand has higher permeability when compared to clay. Dr Ofer testified that the map depicted different soil sediments of the area and that:

[26] Bidden is a geofabric with fine holes which block movement of soil particles but allows water to sip through.
[27] Geological Map; p91.

[45.1] Both sides of the river are surrounded by grey material referred to as K2m. This is the Karoo System composed of shale, sandstone, clay, coal seams, limestone and conglomerate. The soil sediments contain clay.

[45.2] Parallel to the river is a strip of sand. The Karoo deposits have low permeability because of presence of clay. The sand has high permeability and consequently, if water inundates an area, it will flow into the sand because of the high permeability.

[45.3] The properties comprising stands 63, 58, 59 and 60 are on the boundary of the strip of yellow material parallel to the river made of sandy soil section on the map. The section between the river and that uphill towards P. Avenue and S. and I. Roads, reveals that next to the river are the sediments made of the K2M wall (Karoo system). The next sediments are made of sand of mixed origin, either hill-wash or windblown sand. Then, Karoo sediments appear again. It seems the waterfront of all the properties had the clay barrier[28] between the sandy island and the river on the geological map[29] prevented the subterranean water from causing the phenomenon. The surface of the soil homogenously falls towards the river.

[45.4] The map depicts an area filled with sand which must be in a trough. This is a little depression or bath in the soil filled with sand. This was found during excavation when sand was identified. This gives an indication or possibility that ponding or accumulation of water in one

[28] Dr Offer referred to this clay soil as K2m, alluvium material and hill wash.
[29] Exhibit D 47 p91.

position in the sand filled trough, and that water may flow into this sandy material into another location.

[45.5] The direction of the sand sediments ran parallel to the river and follows the contours of the height of the surface elevation indicated on the map. The sand sediment does not create a hill or a koppie. The significance of this is that, if there is concentration of water, then, certain volume of water would drain into the ground saturating the ground. There is a possibility or high likelihood that water would flow the direction of the sand deposit parallel to the river, being the direction of the trough. When the location of the troughs is superimposed on the map, it covers plots 63, 58, 59 and possibly 60.

[45.6] The assumption that water discharged from the storm water drain on plot 63 would flow directly to the river would depend on whether there is frictionless, obstruction less gradient towards the river. If there is porous soil, like sand which is saturated with water, then there will be a combination of a discharge of flow of water to the river and some water would follow the direction of porous sand, saturating it. Given that there were clay sediments at the bottom of the sand, the sand itself acted like a pipe. Water found its way along the sand.

[46] Dr Ofer concluded that there is high likelihood and possibility that the discharge of water on stand 63 saturated the sand sediments and caused water flow which traversed stands 58 and 59, the plaintiffs' property. It was one of the important contributing factors.

[47] During cross examination, Dr Ofer confirmed that his report had been a preliminary report. They had not compiled further reports as there had been no demand for further reports. Nevertheless, he was of the view that he had undertaken what was required as other details were already contained in the SRK Report and the report by Mr Trotsky complimented what was required the final report would have been similar.

[48] He confirmed that at the meeting of experts[30], it was agreed that it could not be said that the tarring had an influence on the shallow localised ground water levels without further investigations based on the available data. He confirmed this, and that there was no data prior to the tarring of the road. He also confirmed that the upward gradient ponding of the site had to be investigated. This relates to the spreading of the damp soil from the lower area of the property to a higher area of the property**.** Nevertheless, the old dwelling was 4-5m above the river and he excluded shallow ground water as the cause of the flooding.

[49] The exact location of the property was not on the oval sand bank identified. While there is a sand deposit indicated on the map, exact boundaries were depicted by a dotted line to due to the lack of GPS System technology used then. However, when he did his onsite inspection and excavated on the land,

[30] Exhibit F Joint Minute of Experts.

he found sand in with clay material indicated in the trial hole dug at the brick wall on stand 59.

[50] He further testified during cross examination, that the possible path that subsurface flow of water took in 2007 from stand 63 of the Green property was an intelligent guess. An accurate determination required the use of the TLB machine to dig holes in all the stands 63, 58 and 60. Only stand 59 was available to him. He had to refer to the map and what he could see on site. It was pointed out to Dr Ofer that the green line he drew depicting the direction of the flow of water traversed the houses on stands 63 and 58. He confirmed that he had not investigated whether there was severe water damage on the neighbouring properties.

[51] He was asked to explain the elevated ground water in respect of the hole[31] at the centre of the original dwelling where he tested the ground water level. He testified that when he examined the property, which was immediately after digging the holes, the water table was noted at 1.5m below ground level. It was 0.4m in the northwest side near the joint between the brick wall and the wired fence. His findings were compared with that of Mr Trotsky. Mr Trotsky had tested the water table on the property in 2015. He found that the water level was 12cm below ground level at the site of the original dwelling. Dr Ofer confirmed his instructions that the flooding dissipated.

[31] In Figure 3 he drew in pink ("Y").

[52] The explaination Dr Ofer made for the elevated ground water level in 2015 with the new drain installed five years later was that Mr Trotsky did not see the flooding of the property. He saw a high perched ground water table level at a certain point in time. This was not at the surface and the water table fluctuates with time. The fluctuation may have been caused by other sources of supply of ground water in the uphill section. The cause of fluctuation required further study which he did not carry out.

[53] Mr Trotsky's[32] findings in respect of the possible sources of shallow ground water levels were put to Dr Ofer. Mr Trotsky had found that these were attributable to natural rise of regional ground water levels. He confirmed this possibility. However, he rejected the possibility that the reeds from the neighbour had created wetland marsh which caused the water table to rise. The neighbours duck pond as another potential possibility could not have caused so much water; the pond would have been limited in effect.

[54] The geological conditions, particularly the presence of clay rich soil which was agreed to have a low transmivity thus acting as a confining layer creating a shallow perched aquifer, put to Dr Ofer could be explained by a blanket of clay present beneath pervious material. This would cause a rise in the water table.

[55] With regards to the rising levels of the Vaal River as a possible contributor, he testified that the location of the original dwelling was about 4-5 meters above

[32] Expert Bundle D2, p134

the normal water level in the Vaal River which is kept as low as possible due to limited flow from the Vaal Dam. The depressions in the property, even though not dealt with by Mr Trotsky in his report were to Dr Ofer. His opinion was that there needs to be continuous rain fall causing saturation affecting ground water level. This would be felt if there is significant rain fall. If the soil is pervious, then it may have an impact on perched ground water table.

[56] Dr Ofer's expertise in Road Construction and Drainage Systems and Roads was questioned, he testified that he had lectured in this area and had constructed roads in Israel and Kenya in the past. It was suggested that the culverts placed on a road depended on the permission of the Municipality, which had a servitude. He testified that surface drainage is part and parcel of the design and construction of the road. If one does not create a storm water drainage, then a danger is created which can affect the stability of the road. In his opinion a drainage system is one of the most important factors in the construction process without which the road will fail and the investment in the construction lost. The purchase of a right of way must be viewed separately from the engineering, design and construction of the road.

[57] Dr Ofer's opinion was that a determination of adequacy of drainage system was ascertainable as reliance was generally placed on standard hydrographs which inform on the intensity and distribution of the rain in various areas. He testified as an example that, the geometry of the road together with factors

specific to that region will determine the number of culverts required for the length of road to be constructed.

[58] The last expert witness called on behalf of the plaintiffs was Mr Tobias, a building project manager and engineer. He holds a BSc Building Science Wits, and is an expert in Contract Management and Dispute Resolution. He testified that on 5 August 2013, he conducted a site inspection of the stormwater provision at the corner of I. and P. Ave Roads. He also walked around the premises of stand 59 to understand where the water was coming from.

[59] He had compiled the report[33] in which he identified 3 problems with the stormwater drainage system. The first was that the storm water drain did not take the water down to the river. The second was that the drain was installed on the southern lower side of the road instead of the uphill side, and, the third was that the size of the pipe was not adequate. These three problems identified with the initial drainage system were addressed in the second installation.

[60] On inspecting stand 59, he discerned two water courses which left a very green strip of grass traversing the site. The first water course path came from the roadside towards the boundary fence, the second was ran parallel to the river. The paths converged through the trundling fence. He testified that trees

[33] Bundle D; p32

along the fence were standing but dead. He had assumed that this was due to excessive water. On the driveway of stand 58, he could see that the blocks were coming off due to considerable amount of water. A volleyball court on stand 58 was destroyed because of excessive water. He could not be definitive as to the cause of the two water streams and could not confirm whether the water was surface or subsurface Even though it was difficult to see, as there was a wall between P. Ave and Mr Greene's property, a berm, a long strip of soil had been built up as a water barrier built up on the boundary to protect the property from flooding.

[62] He testified that water dammed up at the corner and ran down the through the driveway following the contours because the topography was such that there was no other place where the water could run as the next lowest point was the stand 63 and 58 driveway. His[34] report states that the use of the pipe was inappropriate and inadequate because it was installed on the lower side, being the left- hand side when driving down P. Avenue when it should have been on the higher side in terms of good practice. The pipe went underneath the road. An intercepting channel on the other side be inserted with culverts feeding the water into the upstream side of the channel until it reaches the lower point. At this lower point, the water would feed into the drain into a channel to discharge the water into an area that could take it.

[34] Para 2.8

[63] Confirming his report, he testified that t[35]he installation of a bigger pipe on the correct side of the road dispersing water to the river allowed the Lane property to dry. He concluded that the increase in the water table was also caused by event 2 relating to water from damning of P. Avenue. However, the plaintiff claims this is not the cause of the damage to the plaintiff's property. With the choice of tarring of the road, there was a lower friction causing velocity of water running down the road to increase. There was nothing to impede the flow of water as there is lower permeability.

[64] He largely confirmed Dr Ofer's evidence and testified that the tarred road caused a lower friction and high velocity of water running down the road to exponentially increase. The low permeability from the tarred surface meant there was nothing to impede the water flow. This required quicker evacuation and the size of the pipe did not allow for this. If the 450mm did not go all the way to the river, and there was no water arriving at Green's property, then there would be no problem with the pipe.

[65] In so far as the adequacy of the pipe installed, he referred to Mrs Lane's testimony that they started to see water receding after the installation. He confirmed that he had not walked through water under foot when he inspected the site. In his opinion, had the 1.5m pipe been constructed initially, then the level of damage would not have been as severe as there would not have been that amount of water traversing the property and leaving a very distinctive

[35] Para 2.10, page 33

green patch three years later. In his opinion, the pipe still need to discharge directly to the river even if the 1.5m pipe was installed from the outset. A bigger drainage pipe would have assisted but water would have followed the contours as described by Dr Ofer.

[66] As to why the property is not as wet as it was before, his view was that, although he is not a hydrology expert, had the bigger pipe been installed sooner, on the correct side of the road, the problem would have been alleviated. In his view, the pipe would need to discharge to the river regardless of the size. He had submitted a preliminary report because some of the aspects of the matter were beyond his expertise hence why Dr Ofer was called. He had not been sure whether further reports would be required from him.

[67] During cross-examination, the defendant took issue with Mr Tobias having opined and determined the culpability of the defendant. He had stated in his report [36] that the defendant had mitigated its errors and that the council had to make reparations to the plaintiff – a predisposition against the council, a matter that was outside of his duty.

[68] To show that the installation of the previous pipe was not incorrect, it was put to Mr Tobias that because the camber[37] of the road allowed for the water to

[36] Bundle D; P34 Tobias Expert Report Para 3.4 and Para 3.5
[37] Even though there was a difference in terminology as in his view, a camber is a slope that ensures

run to the northern side of the road as well, the municipality had to create an avenue on this side of the road for the water to flow in, hence why the pipe was installed to run underneath the road. The defendant's version is that, given the typology, P. Avenue was built with a camber[38]. Consequently, water ran on both sides of the road. A drain inlet on the northern side would have ensured that the water on that side was captured as well. If there was no drain inlet on the northern side, then the water would not have gone into the drainage system or otherwise a pool of water would have been created.

[69] Mr Tobias testified that under normal circumstances, the installation by the defendant would have been correct. The problem however would have continued to exist because the pipe 450mm pipe on the north side that runs under the road was blocked off by Green and he understood that it was not operational. All the water is running through the 150mm diameter pipe. In his opinion, the road should have been sloped to take the water across into the new inlet built. The current structure does not let it collect into the 450mm diameter pipe. He conceded that he had not investigated whether the 450mm pipe was connected to the new 150m pipe. His opinion was that there had been no need to do so because the 150m pipe ran through to the river and the likelihood of a flood was negligible. He was of the view that the water catchment area that was superior and more correct point for installation was the southern side rather than the northern side. Installing on the northern side

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that as one drives one does not slide as the one side of the road slopes higher than the other side. The defendant is of the view that what he had described was a cross -fall was different from that of the defendant. The witness was adamant that a fall across the road can mean a camber as well.

[38] Camber according to the defendant is when a road is built with a curve high up in the middle of the road and sloping on both sides. The Expert used Cross fall and camber interchangeably.

was a secondary point and not the main point to install. It was a matter of opinion which installation was the more correct. He testified that the defendant should have installed it correctly initially instead of doing so the second time.

[70] He confirmed Dr Ofer's evidence that the adequacy of the pipe depended on the variety of factors which included inter alia, the slope of the road, the rainfall, velocity with which the rain came down on the road. He conceded that there had been no data with this information. He further conceded that these unknown factors would have impacted on his and Dr Ofer's report. Even if this were so, in so far as the contours and the determination of the path of least resistance with regards to the water flow onto stands 63 and 58, he relied on the path of green grass which indicated a waterway which irrigated the grass to grow.

[71] Mr Tobias confirmed that he had not gained access to Mr Green's property and could not state where the drain deposited water on Mr Green's property. He relied on the documentation available to assess and testify that it would have been closer to the road. It was put to him that this was not first-hand information. He testified that if the Municipality had created a channel past the point where the pipe daylighted[39] a quarter of the way down Mr Green's property, it may have done what was required but the sufficiency of the size to pick up the volume of water, he could not determine.

[39] The term day-light means the point where channel comes from underground onto the surface so there is "daylight" for whatever comes out of the channel.

[72] He confirmed that the natural flow of water, would be a straight line between contour angles at 90% from a contour line. He also confirmed Dr Ofer's evidence that the slope from the corner of P. Ave. and I. down to the river is at a steeper gradient than the slope from P. Ave. and I. down to stand 59 where the old dwelling stood. The importance of the contour lines is that it would not have caused the water to flow to 59 but the normal course along the surface towards the river being the shortest possible route. He conceded that he was not an expert in this area but that the water would take the path of least resistance. He relied on the evidence of Dr Ofer in this regard.

THE DEFENDANT'S EVIDENCE

[73] Mr Jean-Pierre Squirra was called on behalf of the defendant. He holds a National Diploma in Civil Engineering and National Higher Diploma in Civil Engineering. He was Acting Assistant Manager of Storm Water from 2004 to 2007. Mr Squirra works for the defendant. The plaintiff objected to his being called as an expert witness on account of his independence. It was also submitted that he had not attended the meeting of experts.

[74] An expert notice in terms of R36 (9) (a) including an expert summary in terms of R 36 (9)(b) was filed on behalf of M Squirra. The defendant submitted that in the light of testimony by Mr Tobias and Dr Ofer which expressed opinion

outside of the expert reports submitted, Mr Squirra will express factual and opinion from his own qualification and expertise. Accordingly, he was not asked to express expert opinion or evidence.

[75] Mr Squirra. was initially employed in the planning of maintenance of road and stormwater infrastructure, surveying stormwater design including aspects of budgeting. From 2008 onwards, he became Acting Assistant Manager - Planning which entailed assessing applications in change of land use including roads and storm water best practice. He has been involved in several roads and stormwater projects since even though he was not involved in the project concerning the subject of the litigation.

[76] His first involvement was in 2007 after Mr Green blocked off the drainage system. He attended a meeting at Mr Green's property between September and October 2007. There was a trapezoidal drain on the north-western boundary of stand 63 inside Mr Green's Property. The channel daylighted fifty metres (50) from the wall towards the river. When he arrived at Mr Green's property, the drain pipe was closed. Water could not flow into the inlets and wing walls on the outside. While he had no idea of the amount of rain, his view was that there must have been excessive rain, given that the tarring was completed in 2006/ 2007 and Green closed the drain in 2007 which would have caused the amount of water.

[77] He testified that various factors are considered to determine the size of the storm water drain pipe to be installed. The bottom line consideration is the flow of

volume of water is, including the size and slope of the catchment area, the water course whether it flows overland and type of cover of the catchment area, namely, whether the area is grassy or paved. The possibility of flooding was taken account of using the Blue Book.[40] The Blue Book is also used to determine what rain events to cater for. Depending on the class of road the design is intended for, allowance is made for certain encroachments. The size of the pipe depended on these factors. On the outlet side, the slope of the conduit that is being discharged into and characteristics of the conduit.

[78] Squirra testified that for urban design, the parameters for the storm water drain design was one in two (1:2) years flood occurrence. This would be more common indicating more regular but smaller storms requiring a smaller drain pipe. For agricultural land as the current one, the standard approach for flood occurrence interval to determine the parameters of the storm water drain pipe used was for one in five (1:5) years occurrence which is of higher magnitude but not more common. For Rural areas, they used the same parameters of one into five years flood occurrence. It would seem that the pipe was designed for those parameters instead of one into fifty years flood occurrence even though he had not been involved in the design of the pipe.

[79] He testified that he traveled on the road after it was tarred. The shape of the road remained the same. The road acted as a channel for the water coming from the north in a similar fashion as the newly constructed road save for one

[40] Manual for design of Roads and Storm Water and other Municipal Infrastructure

portion where the road was lifted. The drain is installed at the corner boundary of the stands. Squirra disputed that there is a cross fall in that area of the road. He testified that even though the road flattens out, the camber remains.

[80] He testified that flooding is not something the council can control. The Council was allowed to have a sheet flow[41] of 150mm over an owner's property in the event of bigger storms. The big pipe was installed because Mr Green was adamant he did not want water on his property. Mr Green's conduct was unfair for this reason. He testified that if the defendant had constructed a pipe to suit the design flow explained earlier, and a storm higher than designed for, there would have been water spanning off the road and had problems with the rest of the community. He then said for the duration of the road, to put a pipe big enough to please everyone. It was decided to increase pipe than what the channel was designed for.

[81] The discussion between the defendant and Mr Green leading to the construction took from 2007 to 2010. The defendant needed to advertise the tender, which had to be re-advertised and had to wait for additional funding before appointing the contractor. It seems the drain remained closed for three years.

[41] Sheet flow means an over flow of water over a property after water has filled up in road reserve or channels and/ or pipes installed.

[82] Regarding the evidence of the contours and flow of water testified to by Dr Ofer, he agreed that water would flow through contours in perpendicular lines. He testified that when surface water was deposited at Stand 63 immediately after the boundary, the natural flow of water would not have allowed it to proceed to stand 59. He had visited the plaintiff property after receiving the summons. There was a worker who directed him to where the old dwelling was. He had scratched the surface of the soil and at 5cm, the soil was moist but not wet. He did not find ankle deep water that Mrs Lane had testified to. The domestic worker who it later transpired commenced work with the Lanes in 2009 said that it was “always like this”. Even though he is not a soil expert, he could press the soil together and see that it was a mixture of clay and sand. His finding was that the construction of the road resulted in less surface water flowing into the property as the road cut water coming from the north.

[83] He testified that the reason the larger storm-water drain was installed was that Mr Green demanded it. This was after the defendant investigated several alternative arrangements including enlarging the channel to prevent the water from spilling out of the pipe which Mr Green refused. The municipality was forced to capitulate as it received letters from Green’s lawyers to the effect that it had to install a pipe. Funds had to be appropriated which were in the region of Two Million Rand (R2m) including legal fees. Leaving it unattended would have potentially resulted in costly legal battles and water down the drain and hence the Municipality decided to install the pipe.

[84] He confirmed that he had no knowledge of the thought process that went to the construction and design of the road and the initial storm water drain. The original cost was One Point Two Million Rand (R1.2m). He was involved in the review of the design of the second drainage system. The council spent R2m which is a lot more on the bigger pipe with 2 or 3 more drainages construction. He was asked to explain why the defendant was prepared to spend an additional R2m (without community contribution) because Green insists yet initially when allocating the expenditure for the first pipe the council was not prepared to take it all the way to the river. He testified that the initial storm water drain was efficient up to the point where it daylighted. The fact that there was overflow out of the channel was because it was designed for 1:5-year flood not 1:50-year flood occurrence. There was nothing wrong with the original design.

[85] While Mr Squirra conceded that rolling the same pipe out to the river would have cost less, he however did not agree that when regard for the financial constraints were factored, it would have been better to take the pipe down to the river in the first place. In his view, “there was no need for a Rolls Royce when a Volkswagen could have done the job.” The hundred (100m) of pipe could have been used elsewhere. He testified that the water did flow to the river over two (2) metres and the land was not being used for anything else.

[86] It was put to Mr Squirra that one must consider subterranean conditions of the soil surface to ascertain where the water would go. His view was that this

would have been relevant if water was discharging on a flat area. It would not have been necessary to go into it except for on a steep slope area like the one at issue.

[87] Mr Squirra was examined on his report, and the impression created that he did not deal with subterranean water disbursed from lower down from Mr Green's property. His report was based on the blockage of the drain by Mr Green. He concluded that the damages were a result of the exposure to the highwater table of the river due to proximity to the river. He testified that he did not think that anybody would make sense or imagine that water would seep into the ground and then run on a slope of 2 % into a sand pipe and move upstream. He testified that if the subsurface water followed the contours as testified, there would be complaints or evidence of water damage to the buildings on the other properties. He conceded that he had not gone to investigate damage to the other properties.

[88] He testified that the damage to the volleyball court of stand 58 could have been caused by surface water. If one took account of the perpendicular lines of the contours, water entering stand 58 would have gone to the west than to the east. The statement made in the report that [42] there was no evidence of water damage was not correct for stand 58 but was correct for stand 63. He had consulted with the owner of stand 63 and there was no damage to the property.

[42] Report Page 106 paragraph 2.2

[88] He referenced the horizontally and vertically close proximity of the river[43] as well as the height of the water table to be at close proximity relative to the foundation of the demolished house as a contributing factor. When considering the evidence of Dr Ofer that the old dwelling was 4 to 5 meters above the waterline of the river, this meant that the foundation of the old dwelling had to have been below the surface. He based this on the calculation of the contours line in Annexure C2 which had 16 contour lines thus creating value of a height of seven (7) metres from the top to the bottom. He conceded that based on the evidence of Ms Lane that save for the 1976 flood, they had not had a problem of ground water sitting on top, water coming from the bottom was not likely to create ankle deep water phenomenon described. Even though there was a high water table, the introduction of water on an already existing highwater table can contribute to water sitting on top of the ground. It was put to him that water from the top needs depressions to reach the ankle depth phenomena. He conceded that he could not explain the phenomena unless the floor level was built below ground level as stated. The sudden appearance of this after fifty (50) years of occupation made this unlikely. Mr Squirra was of the view that if the floor is higher than ground level the water will run away. If the level of the water is surrounding the house, then it means the house was built on a depression. He had never seen the house so he could not explain the sudden ankle-deep nature of the water phenomenon. Nonetheless, his conclusion was based the absence of a water system, caused by the blockage of the drain by Green. He conceded that it

[43] Report page 106 at paragraph 2.4 (a)

was faster than the gradual saturation process of 30 years. He did not offer any other explanation of how the water could have got there in the event that I accepted Mrs Lane's evidence that it started after the previous stormwater was built and receded after the second storm was built. He was invited to offer an alternative explanation to the court if he does not accept Ofer's explanation. He offered no further evidence other than the evidence tabled.

[90] The second witness called for the defendant was Mr Trotsky**,** a Hydrogeologist from the Free State University and Registered with the Council as such. He specialises in groundwater studies, ground water flow and contamination studies. His report details factual data and findings of water measurements conducted using a piezometer on the property in July 2015, approximately nine years after the event. He confirmed that the report could not have dealt with 2006 and could not correlate Dr Ofer's of ground water levels found at 1.5m in 2013 with those undertaken in 2015. He had found shallow ground water levels at 12cm where the old dwelling was once located. His mandate was to check the site as it is and not check what happened in 2006 by conducting a geohydrological assessment. The report which was based on a conceptual site model built at the time of the investigation does not give a definitive opinion on what caused water logging on the property in 2006. He confirmed that all the areas where there was a clay lens this would restrict the vertical integration and flow of ground water. His opinion was that he would have expected the water levels to gradually decrease over time.

[91] He testified that the volume of subsurface flow could not be determined as no studies were done to determine the infiltration rate (recharge) of the surface water to the subsurface water to a layer at which it will flow upon and the gradient of the subsurface flow before and after the construction of the initial storm water drain. His opinion was that detailed soil properties of the area were required including drilling auger holes, infiltration tests and pump out tests using piezometer. With regards to the travel of storm water from stand 63 to stand 59 found by Dr Ofer as likely, his view was that Dr Ofer's likely and his might differ and a more objective approach required intrusive work involving a grid of auger holes[44] to map the flow of ground water direction, probably conducted over a period of two days. Water would need to settle to a point of equilibrium and measured with a piezometer. He however, confirmed that even though on the face of it, it looked like based on the contour lines, subsurface water would follow the natural typography towards the river, the flow would be altered and redirected by a less permeable formation or an intrusive formation.

[92] During cross-examination, he confirmed the geological formation and the finding of sand dykes in the area even though he could not confirm their exact location. He agreed that when they drilled auger holes on the property, they may have intercepted the sand dyke. He did not dispute Dr Ofer's testimony

[44] Measurement of saturated hydraulic conductivity at a locality with available groundwater level in measured layer is best operated by using the auger hole.

that the dotted lines meant it was uncertain but probably existed on other sites even though it could not be confirmed.

[93] Mr Trotsky testified to a photograph[45] taken at stand 59 in proximity of the Lapa facing towards the boat house, near Auger Hole 4. The significance of this photograph is that it showed a wet area, together with a dry area as well as an area that is a clear indication of a moist area. The area had shallow ground water levels. The conclusion that he drew in relation to this and the conceptual site model[46] he developed is that the area which was wet had clay material soil below hence the reason for the wet soil. The flat relief of the area near the river could account for this.

[94] Trotsky identified three other possible sources of water surface features and the possibility of subterranean water coming from underneath, namely the perennial Vaal River'; Wetland Mash Area and the pond on Plot 58 including the area of shallow groundwater levels that would cause a risky foundation identified in the southern section of the site. Whether these could have caused the phenomena of water advancing was tested with Trotsky during cross-examination. He testified that the SRK Consulting Report tests found isotopes and a correlation between the river water and runoff or surface water therefore river water could not be excluded. Water quality analysis done indicated that river water and the water intercepted in the auger holes correlated. However, Municipal water leakage was excluded as a cause. It

[45]Photograph No 20 Fig 6.1
[46] Conceptual Model D2 Page 126 of the Paginated Bundle

was agreed that the river potentially contributed to the high water table. But as to how it contributed to water on 59, he could only refer to the chemical isotope analysis, or possible recharge of the area due to the flooding of the river rising the water levels of the river. He nevertheless agreed that this was unlikely as the last flood occurred 40 years ago, and in relation to the conceptual site model, the massive clay layer on plot 59 ground water would not flow in that direction flow. He conceded that in plot 58 water could flow in that direction and this cannot be excluded.

[95] Dr Ofer had found two sets of deposits hill wash colluvium and alluvium material His view is that is a mixture of clay sandstone, shale and clay is made of alluvium and hill wash from the river and sandy soil from the storm. Mr Trotsky agreed that It was not likely that the water flooding phenomenon was caused by the river or by the subterranean water from the river. The sudden nature could not have been caused by the river. That water receded after the new drain could not be denied.

[96] The wetland marsh area as a contributing factor was also examined[47]. When questioned why water would suddenly appears and ceases occurring he agreed that this did not tie in with what happened in 2006. The pond on plot 58 was also examined and excluded as a potential contributor as there had been no leak. The possibility of Eucalyptus plants and trees (9 of 24 trees were already cut) raised. The trees had died from rotting from overexposure

[47] Figure 8.4 P 22 of Trotsky Report.

to water. He could not dispute that the removal of the trees caused the phenomenon.

[97] Dr Ofer's evidence that the old dwelling was four / five 4/5 meters[48] raised from the water level to the edge of the river was considered with Mr Trotsky. Mr Squirra on the other hand testified that the house was between one meter and one meter and a half above river level. When questioned on what would be expected of the surface water flow given the elevation of the house, he confirmed that this was outside of his expertise as a Hydrologist, he had not found it relevant and he had not disagreed with Dr Ofer's findings at the meeting of experts.

The SRK Consultants Report's finding that the storm water would have drained to the river, as well as Dr Ofer's explanation were put to Mr Trotsky who testified that it was all possible in theory that Dr Ofer was correct. He was not able to provide an alternative theory to explain Mrs Lane's evidence that they had been ankle deep in water and confirmed that he could not deal with the 2006 phenomena.

ISSUES FOR DETERMINATION

[98] The issues for determination are:

[98.1] probable cause of the inexplicable flooding on the plaintiffs' property.

[48] Bundle D1 P 85 of Dr Ofer's Report

[98.2] whether the storm water drainage was constructed in an inadequate and/or inefficient manner, and whether in doing so,

[98.3] the defendant breached the legal duty it owed to the plaintiffs leading to the damage to the property and was therefore negligent.

[99] These issues impact on when the plaintiffs acquired knowledge of the claim they have against the defendant and, in turn, whether the claim has prescribed.

[100] I will adopt a similar approach as that followed during the trial proceedings and address the question of whether the claim has prescribed in terms of the Prescription Act and ILPACOS at the end of the analysis of the evidence.

APPLICABLE LEGAL PRINCIPLES, ANALYSIS AND DELICTUAL LIABILITY

[101] I deal with the applicable legal principles to determine whether the defendant is liable in delict to the plaintiffs and apply these to the evidence before me.

[102] The essential elements of a claim in delict are:

(a) conduct initiating wrongfulness, by the defendant;

(b) fault by the defendant which may consist in either intention or negligence;

(c) harm suffered by the plaintiff; and

(d) a causal connection between the conduct of the defendant and the harm suffered by the plaintiff which must not be too remote (unless this limitation is subsumed under the fault element)[49].

[103] In *Hawekwa Youth Camp and Another v Byrne* [50] Brand JA states that:

"*The principles regarding wrongful omissions have been formulated by this court on a number of occasions in the recent past. These principles proceed from the premise that negligent conduct which manifests itself in the form of a positive act causing physical harm to the property or person of another is prima facie wrongful. By contrast, negligent conduct in the form of an omission is not regarded as prima facie wrongful. It's wrongfulness depends on the existence of a legal duty.*

The imposition of this legal duty is a matter for judicial determination, involving criteria of public and legal policy consistent with constitutional norms. In the result, a negligent omission causing loss will only be regarded as wrongful and therefore actionable if public or legal policy considerations require that such omission, if negligent, should attract legal liability for the resulting damages (see e.g. Telematrix (Pty) Ltd supra para 14; Local Transitional Council of Delmas supra paras 19 - 20; Gouda Boerdery Bk v Transnet 2005(5) SA 490 (SCA) ([2004] 4 All SA 500 para 12)."

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[49] See H L & H Timber Products (Pty) Ltd v Sappi Manufacturing (Pty) Ltd 2001 (4) SA 814 (SCA) at 820E-G para 13; Joubert, The Law of South Africa (LAWSA), second edition, 8 part 1 at 4 and Boberg The Law of Delict Volume 1,Juta at 24.

[50] 2010(6) SA 83 at par 22-23

[104] During argument, the plaintiffs submitted that there was a commission as well as an omission by the defendant. It was submitted that the defendant failed to disperse the storm water directly to the river. In so far as the omission is concerned, the plaintiff submitted that the defendant had failed to investigate or conduct an analysis of the soil conditions on stand 63. It was argued that the defendant could have established this by employing a hydrologist as it was incumbent on the defendant to track the potential path of the storm water to determine whether there would be any fact on the natural water table since an increase in the water table potentially led to surface water appearing with nowhere else to deposit[51].

[105] The wrongfulness of the defendant's actions is premised on the fact that if the defendant foresaw or ought to have reasonably foreseen the potential harm, then it should have taken steps to prevent such harm. The defendant which is part of the sphere of local government is enjoined with certain powers and functions in terms of Section 84(f) of the Municipal Structures Act 117 of 1998 which includes the power to establish municipal roads. The question is whether the legal convictions of the community demand that the defendant takes actions to avoid harm?[52]

[106] I have had regard of the decision in *Municipality of Cape Town v Gladys Marjorie Bakkerud*[53] where the court considered previously held position that in

[51] Plaintiffs Heads of Argument Paras 138 to 142
[52] Defendant's Heads of Argument Para 90
[53] 2000(3) SA 1049 SCA

the absence of an antecedent or concomitant act of commission act by the municipality which must necessitate a different result, no legal duty emanating from the law of delict to repair a street or pavement could arise**.** I am satisfied that the defendant does not enjoy immunity in relation to a negligent act or omission. Even though the construction project was partially funded by the residents, more was required from the defendant to establish financial constraints or grounds for immunity in this instance.

[107] The time-honored test for the determination of negligence is the one formulated by *Holmes JA in Kruger v Coetzee 1996 (2) SA 428 (A) at 430E - H. According to this test, negligence will be established if –*

1. "A diligens paterfamilias in the position of the defendant -

(i) would foresee the reasonable possibility of his conduct injuring another in his person or property and causing him patrimonial loss;

(ii) would take reasonable steps to guard against such occurrence; and

2. the defendant failed to take such steps."

[108] The material aspects of the issues for determination largely depend on the expert evidence led. Prior to dealing with the merits, it is essential to restate the principles governing the role of expert witnesses in trial proceedings as these have informed my approach to the evidence before me. In *S v Gouws*[54]:

[54] 1967 (4) SA 527 528D

"the prime function of an expert seems to me to be to guide the court to a correct decision on questions found within his specialised field. His own decision should not however, displace that of the tribunal which has come to determine the issue to be tried. "

[109] The abiding principle that an expert should provide independent, unbiased assistance to the court, free from the influence of the litigants and the litigation, has been reaffirmed in a number of court decisions. *In National Justice Compania Naviera S.A v Prudential Assurance Co Ltd 1993 (2) Lloyds Reports 68 -81* as well as the decision in *Schneider NO and others v AA and Another* where the court quoting the judgment by Nicholson J stated that:

"In short, an expert comes to court to give the court the benefit of his or her expertise. Agreed, an expert is called by a particular party, presumably because the conclusions of the expert, using his expertise, are in favour of the line of argument of the particular party. But that does not absolve the expert from providing the court with as objective and unbiased an opinion, based on his or her expertise, as far as possible. An expert should not be hired gun who dispenses his or her expertise for the purpose of a particular case. An expert does not assume the role of an advocate, nor gives evidence which goes beyond the logic which is dedicated by the scientific knowledge which the expert claims to possess".

[110] In this sense, an expert may not assume a role of advocate for a party. I have considered the evidence of both Mr Squirra and Mr Tobias against the

backdrop of these principles. It was common cause, and the defendant agreed that Mr Squirra cannot be qualified as an expert given his employment relationship with the defendant. Due to this proximity, I have accordingly, considered his evidence as that of a factual witness. I deal with aspects of this evidence later in the judgment.

[111] In so far as Mr Tobias is concerned, I take cognisance that he was challenged for having prejudged the issues. During his testimony, he referred to the defendant as being “naughty”, and these comments are not helpful to the court. An inference of bias and partisan was made, and given this, I accept that this inference was correctly made. The probative value of the expert evidence will be of little assistance to the court.

[112] The subject of this dispute involves what both litigants regard as inexplicable and unusual phenomena. I am of the view that the technical nature of the issues under consideration demand that I be provided with evidence of good repute I can rely on to formulate a decision, untainted by any imputation of bias towards any particular party. If I am to draw an appropriate inference, reach a fair conclusion, independent unbiased defensible theory before the court[55] on the probable cause of the flow of the water is necessary. Mr Tobias’ approach as an expert did not meet these requirements and I have as a result excluded it for the purposes of this judgment.

[55] Schneider NO and others v AA and Another 2010(5) SA WCC at paragraph 211J-212B,

[113] I now deal with each of the issues of factual causation seriatim below. As stated in *International Shipping Co (Pty) Ltd v Bentley* [56]

'As has previously been pointed out by this Court, in the law of delict causation involves two distinct enquiries. The first is a factual one and relates to the question as to whether the defendant's wrongful act was a cause of the plaintiff's loss. This has been referred to as 'factual causation'. The enquiry as to factual causation is generally conducted by applying the so-called but-for test, which is designed to determine whether a postulated cause can be identified as a causa sine qua non of the loss in question. In order to apply this test one must make a hypothetical enquiry as to what probably would have happened but for the wrongful conduct of the defendant. This enquiry may involve the mental elimination of the wrongful conduct and the substitution of a hypothetical course of lawful conduct and the posing of the question as to whether upon such an hypothesis plaintiff's loss would have ensued or not. If it would in any event have ensued, then the wrongful conduct was not a cause of the plaintiff's loss; aliter, if it would not so have ensued. If the wrongful act is shown in this way not to be a causa sine qua non of the loss suffered, then no legal liability can arise. On the other hand, demonstration that the wrongful act was a causa sine qua non of the loss does not necessarily result in legal liability. The second enquiry then arises, viz whether the wrongful act is linked sufficiently closely or directly to the loss for legal liability to ensue or whether, as it is said, the loss is too remote. This is basically a juridical problem in the solution of which considerations of policy may play a part. This is sometimes called legal causation."

[56] 1990 (1) SA 680 (A) at 700 E-I

What was the probable cause of flooding on the property?

[114] The first question requires that I deal with the probable cause of the water flooding the Plaintiff's property. As already stated, there is no dispute between the parties that the plaintiffs first noticed the slow but sudden creep of water onto their property after the roads were tarred.

[115] In assessing the probable cause and flow of water, I have had close regard of the expert explanation offered by Dr Ofer's and Mr Trotsky's testimonies. In my view, the evidence of these experts met the criteria in ***Coopers (South Africa) (Pty) Ltd v Deutsche Gesellschaft für Schädlingsbekämpfung*** [57] where the court stated that:

"*As I see it, an expert's opinion represents his reasoned conclusion based on certain facts or data, which are either common cause or established by his own evidence or that of some other competent witness. Except possibly where it is not controverted, an expert's bald statement of his opinion is not of any real assistance. Proper evaluation of the opinion can only be undertaken if the process of reasoning which led to the conclusion, including the premises from which the reasoning proceeds, are disclosed by the expert."*

[57] MBH 1976 (3) SA 352 (A) 371 G-H

[116] I have considered their evidence against the factual description provided by Mrs Lane. The evidence was also weighed against the factual evidence of Mr Squirra for the defendant.

[117] The point of convergence is that all the experts agreed that the introduction of impermeable surface through tarring the roads increased water surface flow. I am satisfied that the connection between increased volumes of water and the tarring of the road was established. Any differences between Dr Ofer and Mr Squirra as to the exact cubic meters of water created and deposited does not detract from the fact that tarring introduced an impermeable surface which increased water flow. I am also satisfied that the lowest point for the deposit of the water was the initial drainage system at the corner of I. Road and P. Avenue.

[118] This leads me to the evidence of the explanation of the water would have progressed from Mr Green towards the river and seemingly turn upwards towards the plaintiff's property. The assumption that water would flow directly to the river was tested with all the expert witnesses. This common view was held by all the witnesses called, that ordinarily, water would flow on the path of least resistance. Therefore, if the gradient as in this case was towards the river, it would have been expected that the water would flow towards the river. It was also evident in the initial report prepared by SRK Consulting, which was referred to by all the experts. There is no dispute and as consequence I have inferred from the facts that by daylighting the storm drainage pipe at Mr Green's

through the channel that was built, this common assumption was also held by those responsible for the construction of the drainage.

[119] This brings me to the evidence offered to explain the departure from the common assumption which must be considered against the backdrop of increased volumes of water introduced by tarring as aforesaid. The auger hole tests conducted by Dr Ofer and the different soil composition found on various areas of the property appear to align with the soil composition testified in respect of the geological map. When one has regard to the nature of the soil, Dr Ofer and Mr Trotsky were in relative agreement that the property, had sandy soil as well as the layer of yellow-brown fine grain sandy soil was found on the northern side of the property, even though Mr Trotsky had made no reference to the sand dykes in his report[58]. I have accepted that because the map was drawn without the benefit of the new technology (geotechnical), the boundaries of the oval sand bank or sand with clay material found are an approximation and could not be not be scientifically exact. I have considered Dr Ofer's reference to an educated guess in this context.

[120] Significantly, a mixture of soil with clay lenses and clay material was found towards the southern side of the property near the embankment and the river. There is no dispute that unlike sand, clay material rendered the soil less porous and permeable. The conceptual model by Mr Trotsky showed the areas where there was no room for porous seepage of water or infiltration downward.

[58] Page 116 paragraph 4.4

[121] Mr Trotsky had conceded that the phenomena surface water moving of upward or upgradient was strange, even though he agreed that the groundwater (subsurface water) flow direction[59] if there is saturation water would appear on top of the surface. He attributed this to the flat relief and presence of clay soil. The Arial photograph showed ground water flow contours[60] heading towards the old house northwards. Even though there was no surface elevation done for the site but it was possible. The construction of the second water drain accumulated water and discharged into the river.

[122] Both Dr Ofer and Mr Trotsky's evidence of the contours on the map[61] showed that the southern portion of stands 59 and 63 near the river had similar flat contour lines. The difference in the gradient was nominal and the properties had a relatively stable and similar topography. This was not disputed by Mr Squirra on behalf of the defendant. Dr Ofer had testified that with increased volumes of water, the porous sand could act as a pipe or conduit once reaching saturation point was reached because of the impermeable clay material.

[123] Given the sandy soil also evident from the map on Mr Green's property, the left turn when it hits the impermeable clay is possible. It was possible that if water was coming across from the neighbors' property[62] on top of the sandy soil portion depicted, and the area became saturated and there is a constant

[59] Page 127 of Trotsky Report para 8.1.1
[60] Page 128 at Auger Hole 5
[61] Trial Bundle 2; Figure 2
[62] Page 126 Conceptual Site Model from Auger hole AH2 to AH7

recharge, water would rise up as it has nowhere else for it to go. Both Mr Trotsky and Mr Squirra did not dispute under cross examination the possibility that if the soil became saturated underneath, with surface flow and the recharge of water was happening faster, it could look like the water was moving upstream/hill even though the area is flat if this was the flow gradient depending on the rate of infiltration.

[124] Other than the highwater table found, a matter dealt with later in the judgment, the alternative causes offered by the defendant, were not strong enough and were excluded as likely possibilities. It is essential that I deal with the differences in the explanation offered by the defendant. This rests on the high water table found and water found in the sump showed that the majorly of the water emanated from the river.

[125] Turning to the defendant's case which is pinned on the presence of the unaccounted high water table found by Mr Trotsky. It was pointed out there was no data on the water flow and localized ground water prior to tarring. The question why a high water table found years after the event and after the installation of the new drain loomed large. Both experts had agreed that the shallow localized ground water required investigation. Dr Ofer and Mr Trotsky had found a fluctuating water table at different times during their respective investigation.

[126] A photograph[63] taken during the investigation in 2015 shows moist grass to show that the property still has elevated ground water level on the southern portion of the site which includes the area of the old dwelling. The implication is that even after the construction of the new water drain, the property remained moist. All Joint experts agreed that there is a high water table on the property. Nevertheless, Mr Trotsky agreed with what Dr Offer said that if the property was water logged, it could take some time for the property to dry out because of the clay lens that is between the sandy portion where the old house was and the river. There will be a decrease over time subject to a charge and a recharge of water. The water table was not surprising therefore it would have occurred naturally in the intervening 5 years by rainwater which explains why it would be moist even after the new drain. This, together with the clay lens and the flat a relief of the area are important consideration in my view.

[127] Dr Ofer confirmed his findings in cross-examination that it was highly likely or that there was a great likelihood that the level groundwater was affected by discharge of water into stand 63 where discharge of storm water was allowed to flood this property without a channel or conduit to direct it to the river. He correctly did not make a statement as to whether it was the sole cause or most probable or exclusive cause as this would usurp the role of the court.

[63] Page 139

[128] Mrs Lane's evidence is important in this regard. It was not disputed that the water seepage was noticed after the storm water drain. It was also not disputed that there was an improvement after the new installation and the saturation abated even though at slow pace. This seems consistent the mixture of sandy soil and clay deposits found. All the possibilities raised by Mr Trotsky would not have resulted to sudden increase testified to by Mrs Lane but rather a gradual increase not evident.

[129] As a starting principle, I have had regard of the recognized and accepted difference between the scientific measure of proof and the judicial one highlighted by the House of Lords in the Scottish case of *Dingley v The Chief Constable, Strathclyde Police*[64], that:

"One cannot entirely discount the risk that by immersing himself in every detail and by looking deeply into the minds of the experts, a judge may be seduced into a position where he applies to the expert evidence the standards which the expert himself will apply to the question whether a particular thesis has been proved or disproved - instead of assessing, as a judge must do, where the balance of probabilities lies on a review of the whole of the evidence."

[130] In conclusion, the seminal decision in Linksfield v Michael[65] is aposite. The court restates what is required in the evaluation of such evidence, that it is to determine whether and to what extent their opinions advanced are founded on logical reasoning. The court must be satisfied that such opinion has a logical

[64] 200 SC(HL) 77 at 89 D-E
[65] Linksfield v **Michael (??)** at 241 G - 242 B.

basis, in other words that the expert has considered comparative risks and benefits and has reached “a defensible conclusion”.

[131] Based on the evidence by these experts, the location of the clay lenses and clay material which are indicators of less permeability corroborate the evidence of Mrs Lane’s evidence in that the water was seen moving upward. The reference to an “educated guess” by Dr Ofer in relation to the flow and the location of the sand bank on the various properties does not detract from the basis of the reasoning. The defendant has mainly placed reliance on aspects of data which was not available to provide a definitive conclusion. This relates to the exact amount of water that would have seeped into the subsurface, the location as well as the depth of the sand bank amongst others. The defendant also relies on the SRK Consulting report which had found traces of storm water as well water contamination from the river in the sump.

[132] Even though Dr Ofer was challenged that he had not assessed the neighboring properties, the factual evidence by Mrs Lane was that the water flow moved from stand 63 to 59. There was also evidence that the water had moved to the neighboring property owned by Mr Rippen who was holding the plaintiffs responsible.

[133] When it was put to Mr Squirra that the conditions of the surface where the water was dispersed should have been checked, Mr Squirra was of the view

that it was not necessary to consider this soil conditions to ascertain where the water would go once deposited. This would have been relevant if the water was discharging on a flat area. Given that the water was discharged on a steep slope area. In my view, the evidence of the soil conditions and that of the water flow referred to by Dr Ofer are consistent with the factual evidence which was not challenged.

[134] Even though part of the front of the property was still wet, it is not saturated. Slowly over the years, the back of the property as well as the middle to the front dried out. It is clear from the evidence of all the parties and Mr Squirra that neither the defendant nor the plaintiffs could have imagined the explanation offered by Dr Ofer. I am satisfied that the geological conditions created the underlying conditions in which water that flooded the property could travel from stand 63 onto 59 in the manner described by Dr Ofer. No other evidence was offered to counter this evidence

[135] The second question is whether the initial storm water drain was inadequate and/ or inefficient and the installation incorrect for the purposes of dispersing the increased water flow.

Was the initial storm water drain constructed inadequate and/or inefficient and the installation incorrect for the purposes of dispersing the increased water flow?

[136] The three factors raised by the plaintiff and in the evidence to show that the installation was inadequate, were that:

[136.1] a single culvert which was installed on the wrong side of the road;

[136.2] the size of the pipe; and

[136.2] the fact that it should have been constructed to deposit water directly to the river instead of depositing the same on stand 63.

[137] The defendant argued that Dr Ofer had not expressed opinion on the alleged negligence but merely a causal link between the alleged negligence and resultant damage. I deal with this later in this section of the judgment. The defendant linked the question of the adequacy of the initial storm water drain primarily to the evidence of Mr Tobias. Dr Ofer had testified on what he observed as an incorrect installation of the culvert inadequate size of the pipe as well as the fact that the pipe did not go down to the river when he inspected the property. His evidence was confirmed by Mr Tobias. Dr Ofer was also questioned about his expertise in road construction during cross examination.

[138] Dr Ofer had testified that at the junction between the west side of P. and south side of I. Road which are the natural lowest point of alignment of the three roads, the single culvert[66]was constructed on the southwest side of P. Ave which was the downhill side. The drain channel should have been on the

[66] A culvert is pipe installed in the road into the ground

uphill side of the road. This would have also prevented wear and tear, erosion and flooding of the road. There were no other culverts that transferred water in P., S. or I. save for this single culvert.

[139] The only evidence presented to counter this allegation by the defendant is to be found during the cross examination of Mr Tobias regarding the effect of the road camber on runoff water. The tenure of this cross examination gave an impression that in view of the camber on the road which allowed run off water on both sides of the road, the installation on the southern side was not necessarily incorrect and/or that the installation of the drainage pipe on the northern side was not an imperative as made out by the plaintiffs. Because it was accepted that from the contour map, from the corner of I. and P. where water deposited towards the river, the slope is steeper than the slope from corner of I. and P. and towards where the plaintiffs' old dwelling was as well as the increased volumes of water, I am of the view that a stronger rebuttal of this evidence by the defendant was necessary. The failure to do so means that the plaintiff's criticism must stand.

[140] The second and third aspects relate to the criticism of the size of the drainage pipe and the fact that it was not constructed to run to the river. I deal with both these issues simultaneously given the interrelated underlying facts relevant in respect of each of the complaints. The plaintiffs argued that had the pipe been installed to run to the river instead of depositing water into Mr Green's

property in the first instance, it would have been cost effective and the damage would not have occurred.

[141] Even though Mr Squirra for the defendant was not involved with the construction and design of the initial storm water drain. Definitive evidence of the thinking that went into the design as well as the parameters used was not made available. He testified that the defendant was allowed to have a sheet flow[67] of 150mm over an owner's property in the event of bigger storms. The reason why a bigger pipe that went directly to the river was eventually constructed was to appease Mr Green who refused to accept water flow on his property. Cost constraints had been a factor in the construction of the initial drainage system. His evidence was that there had been no need for a Rolls Royce when a Volkswagen would do.

[142] All the witnesses agreed that to determine the adequacy of the storm water drainage system depended on other factors, namely, the slope of the road, velocity of water at the lowest point as well as the amount of rain. As already stated above, however, the topography and the gradient of the area was known. There was no dispute that the surfacing of the roads on its own would result in increased volumes of water. The defendant argued that this could not be determined due to the absence of scientific data.

[67] Sheet flow means an over flow of water over a property after water has filled up in road reserve or channels and/ or pipes installed.

[143] The notes with regards to the update on the construction project received and testified to by Mrs Lane reads as follows:

"Along P. Rd it is intended to insert three pipes under the road to carry water towards the river. This may require disbursing water onto certain properties more than one property to reduce the need to disburse water flowing from one property where there is a servitude".[68]

[144] I part ways with the defendant's view that the absence of this scientific data renders the issue indeterminable, therefore puts paid to the claim of negligence. I have already accepted the explanation of the water flow by Dr Ofer and that the defendant had failed to take this to account. It seems to me that tarring of the roads introduced with it urban features to an otherwise zoned agricultural area. The impression created in the update note on the construction project is that increased volumes and the need to spread the flow of water onto other properties was anticipated. There is no evidence why a single culvert instead of the three envisaged was not installed.

[145] With regards to the failure by the defendant to construct a pipe that deposited water directly to the river, it is essential that I deal with the defendant's approach to the evidence. The defendant argues that the plaintiff's experts had based their opinions on a fact they did not persist with at the trial. The SRK Consulting report relied on by the experts stated that water would have gone down the access road to stand 58 to the river. The defendant also relies

[68] Bundle A page 10 I. Update 3 from the Municipality. Para 3 regarding "some aspects of the project":

on Dr Ofer's report that it was hydrologically possible that some of the water could have flown via the entrance road of plots 58 and 59 due to the absence of an adequate storm water drainage. In addition, the defendant submits that the plaintiffs' witnesses had based the point where the water was deposited on Mr Green's property on speculation and the plaintiff's witnesses had no issue with the point where the channel daylighted onto Mr Green's property. This argument does not address the fundamental question of where the water would flow once deposited. In my view, it is not the point of deposit alone that determines this issue.

[146] As stated in *Nicholson v Road Accident Fund*[69] expert opinion does not usurp the role of the court in assessing the probabilities of a case, and further that the expertise of a witness should not be elevated to such heights that sight is lost of the court's own responsibilities and capabilities in drawing inferences from the evidence inferences from the evidence[70].In this case, Judge Wepener stated that:

" It is the function of the court to base its inferences and conclusions on all the facts placed before it".

[147] The nature of the issues required that the defendant places its own evidence of what was considered. The context of the evidence of where the pipe daylighted cannot be viewed in isolation. This approach by the defendant fails to account for and offer explanation for the alleviation of the flooding that

[69] (11453/2007) 2012 SGHC (unreported)
[70] S v Huma 1997(4) SA 766 and Holtzhauzen v Roodt

occurred subsequent to the construction of the second drainage system. It is also significant to the court that the defendant did not call witnesses who had direct knowledge of the thinking that went into the design and the construction of the initial drainage system.

[148] From the evidence as a whole, the inference and conclusion that can be drawn is that had the storm water drainage pipe of an appropriate size been constructed in an appropriate position to deposit water directly to the river, the flooding was of the plaintiff would not have occurred. An inference is inescapable that in the quest to cut costs, the defendant installed a pipe that was inadequate and or inefficient.

[149] The reasoning offered by Dr Ofer on the probable cause of the flooding on the property together with the factual evidence presented with regards to the initial storm water drain finds favor with the court. The plaintiffs have succeeded in establishing on the balance of probabilities that the initial storm water drain was inadequate, ineffective and not efficiently constructed.

PRESCRIPTION

[150] The last question for determination relates to the special plea and defence of prescription on Section 12 (3) of the Prescription Act 68 of 1969 and a plea of non-compliance with Section of the ILPACOS Act. Determination was held over to the end of the trial proceedings. In respect of non- compliance, the

defendant submit that the plaintiff failed to give timeous notice to the defendant. In resisting the special plea, the plaintiffs dispute that the claim has prescribed. The plaintiffs also resist the allegations of non-compliance with ILPACOS, and as an alternative, seek condonation in thereof.

[151] It is common cause between the parties that action commencing proceedings was instituted on 14 November. The letter giving notice of the claim to the defendant was served by the Sheriff 20 September 2011. The plaintiffs submit that this is not withstanding that the letter was dispatched to the sheriff on 24 August 2011.

[152] The defendant relies on the evidence of Mrs Lane and submits that the plaintiffs had constructive knowledge of the identity of the debtor and with reasonable care, ought to have acquired the knowledge and the facts from which the debt arose from at least June 2011. The defendant submits that the only change in the environment was the construction of the road. The plaintiffs knew as early as 2006 who was responsible for this construction. The defendants also rely on the fact that the plaintiffs had taken the decision to demolish a luxurious and valuable asset in 2008 which was implemented in 2009. It argues that by an exercise of due diligence, they would have established the cause of waterlogging on the property. The defendant nevertheless accepted that Dr Ofer on whom the plaintiffs rely to establish the cause of the flooding and the causal link between this and the road was only instructed in 2013 after the proceedings were instituted.

[153] Based on Mrs Lane's evidence, it was only in January 2010 that the plaintiffs became aware that the cosntruction of the road might have something to do with the waterlogging on the property. The timeline of various steps taken has already been dealt with above. It was submitted on behalf of the plaintiffs that the cause of the groundwater water was not easily ascertainable, and after seeking advice of lawyers, the issue was not an easy one to explain.

[154] Section 12(3) of the Prescription Act requires states that a debt is not deemed to be due until a creditor has knowledge of the debtor and the minimum facts from which a debt arose[71]. Actual knowledge of the debtor means factual knowledge of the debtor's identity[72]. The minimum facts have been held not to mean the full ambit or legal conclusions or implications. In this regard, it is whether the plaintiffs had the material facts on which to institute proceedings. In so far as the knowledge of the minimum facts required are concerned, the principle is that the minimum facts known must nevertheless provide a justifiable and constitute a complete cause of action against a defendant.[73] However, not every piece of expert evidence is required to prove a case based on negligence.

[155] The onus lies on the debtor to show that the creditor either knew or ought to have known about the existence of the debt by exercising reasonable care.

[71] Fluxmans v Levenson [2016] ZASCA 183 Para 42
[72] Sane J Prescription in South African Law (LexisNexis -Service Issue 19) 2012 para 2-65-3-82
[73] Links v Department of Health, Northern Province 2016 (4) SA 414 CC

With regards to constructive knowledge, this will be imputed to a creditor who knew certain facts that would have enabled the creditor to establish the debtor's identity[74]. The defendants primarily rely on constructive knowledge.

[156] The question is when it could be said that the plaintiff acquired or had constructive justifiable knowledge of facts on which to base a complete cause against the defendant.

[157] The plaintiffs were criticised for demolishing the property without engaging experts notwithstanding that they were engaged with their insurers and were recorded to have also sought advice from Rand Water Board. I have assessed their conduct against what the witnesses presented as a peculiar occurrence. Even though the second plaintiff first heard that the new road might have something to do with the waterlogging in 2010, it could not be said that this knowledge constituted justifiable facts. It seems to me that for the purposes of reckoning prescription and or non- compliance, the SRK Consulting Report furnished to them in January 2011. SRK Consulting undertook investigation three (3) years after the property was demolished and a few months after the construction of the second storm water drain.

[158] Mrs Lane testified that it took them time to understand the contents and to consult with attorneys and counsel. Both parties agree that the report was inconclusive as to the causal connection between the tarring of the road,

[74] Gericke v Sack 1978 (1) SA 821 A

groundwater levels and the waterlogging on the plaintiffs' property. It was submitted that the report[75] lead the plaintiff to acquire the knowledge of the potential problems. The plaintiff nevertheless proceeded with the action. In my view, the defence of prescription must fail as the action was instituted with the prescribed period when knowledge of the facts giving rise to the claim and the debtor were acquired.

[159] What remains is the question of non- compliance with the ILPACOS which requires that notice be provided within six (6) months from the date when the debt becomes due. Mrs Lane testified that institution of legal proceedings was first scheduled for May 2011. This would have been approximately five (5) months from the date when it could be said they had acquired requisite knowledge of the debt and the debtor as already found in respect of the prescription argument. Given the principle that the minimum facts required to give notice and / or institute an action have been held not to mean the full ambit or legal conclusions or implications, it seems to me that the decision to compute damages prior to giving the required notice compounded the delay. This could have been done after the requisite notice was given. I am satisfied therefore that the notice was out of time.

[160] What remains is consideration of the application for condonation which was brought in the alternative, should I determine there was non–compliance. The requirements are that the court must be satisfied in terms of Section 3(4)(b)

[75] Bundle D1 Page 1 to 9

that the applicant relies on an extant cause of action on the balance of probabilities.[76] Good cause explaining the delay as well as the absence of prejudice to the defendant must be shown.

[160] It is significant in my view as already held that the claim had not prescribed. The time lapse at issue involves a short period of no more than one month. Sight cannot be lost that the policy considerations embedded in the requirements to give notice to state organs is the need to facilitate a proper investigation and settlement of well-founded claims against the state in order to limit unwarranted litigation. It seems to me that there may be genuinely unique cases as this one, where the defendant ought not to lightly rely on the formal defence as a matter of course.

[161] In view of the time period involved, the genuinely unique circumstances of this case and the fact that the claim had not prescribed, a case has been made out for condoning the late filing of the notice.

[162] In the circumstances, the plaintiffs have succeeded in establishing on the balance of probability that:

[162.1] there was a causal link between the tarring of the roads, the construction of the initial storm water drainage system and the water logging on the property.

[76] Madinda v Minister of Safety and Security 2008 (4) SA 312 (SCA) Para 8-16

[162.2] The defendant permitted the construction of an inadequate/ inefficient storm-water drain following the tarring of the roads and was therefore negligent;

[163] In the result, I make the following order:

[163.1] The defendant is liable to the plaintiffs' damages to be established in due course;

[163.2] The plaintiff's failure to provide timeous notice of the claim is condoned.

[163.3] The defendant is ordered to pay the costs of the suit.

……..

SIWENDU J

JUDGE OF THE HIGH COURT

DATE: ……..

Heard on: 17 October 2016 – 21 October (part heard)

Argument Heard on: 16 February 2017

Delivered on:19 July 2017

Counsel for Plaintiff: Adv. Kairinos SC

Counsel for Defendant: Adv. Charles Thompson