Determination 2011/027

Subject to clarification of 30 May 2011[1]

Surface water runoff onto other property at 90 Paremata Road, Porirua

1. The matter to be determined

1.1 This is a Determination under Part 3 Subpart 1 of the Building Act 2004[2] ("the current Act") made under due authorisation by me, John Gardiner, Manager Determinations, Department of Building and Housing ("the Department"), for and on behalf of the Chief Executive of that Department.

1.2 The parties to this determination are:

- J and D Phillips, the owners[3] of a property at 90 Paremata Road ("the applicants")
- the Porirua City Council, carrying out its duties and functions as a territorial authority and a building consent authority ("the authority"). The authority is acting through a firm of lawyers ("the authority's lawyers")

1.3 I also consider that G and J Purdie, the owners of an upstream property at 63 Kahu Road, are persons with an interest in the matter to be determined ("the upstream owners").

1.4 I take the view that the matter for determination, under section 177(1)(a) of the Act, is whether surface water flowing onto the applicants' property from the Ivey Bay Reserve ("the reserve") is

- a result of consented building work on the upstream property, and
- likely to cause damage or a nuisance in terms of Clause E1 Surface water[4] of the Building Code.

1.5 The authority wrote to the Department on 23 June 2010 requesting clarification as to whether the subject of the application was a determinable matter.

1.6 The Department responded to the authority on 13 July 2010 and the specific comments of that letter, which I consider to be relevant to this determination, were:

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[1] The clarification is appended to this determination as pages 17 to 19.
[2] The Building Act, Building Code, Compliance documents, past determinations and guidance documents issued by the Department are all available at ww.dbh.govt.nz or by contacting the Department on 0800 242 243.
[3] In terms of section 176(e)(i)
[4] In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

> At first glance, we believe the matter falls within section 177(a) being 'whether particular matters comply with the Building Code', in particular the requirements of Clause E1.3.1 being:
>
> … surface water, resulting from an event having a 10% probability of occurring annually and which is collected or concentrated by buildings or sitework, shall be disposed of in a way that avoids the likelihood of damage or nuisance to other property…

Accordingly, I do not accept the opinion of the authority that the matter as set out in the determination application is not one that can be determined.

1.7 In making my decision, I have considered the submissions of the parties, the report from an independent firm of consulting engineers ("the expert") commissioned by the Department to advise on this dispute, and the other evidence in this matter. I also note that the relevant provisions of the Act and the Building Code are set out in Appendix A.

2. The properties

2.1 The applicants' property is situated towards the bottom of a naturally formed gully, which is part of a reserve. The dwelling was constructed in 1957 and the applicants bought the property in March 1997.

2.2 Prior to any construction on the applicants' property, the authority installed a 300mm surface water pipe at the base of the gully, through the applicants' property to the harbour outlet. The dwelling was constructed over this 300mm pipe.

2.3 A 225mm pipe installed by the applicants extended this system further upstream. The surface water inlet comprises a 225mm diameter pipe with a concrete apron and is situated on the boundary of the applicants' property. A 700mm wide weir is located above the inlet.

2.4 Directly upstream of the inlet apron is a 225mm diameter pipe culvert, entry weir and debris traps set below the natural drainage channel subsequently added by the authority.

2.5 The upstream property is situated approximately 125 metres (in plan) above the applicants' property, and is one of several properties situated along, or down, the slope from Kahu Road at the top of the gully. The dwelling on the upstream property was constructed in the 1960's and was extended in 1974 and 1978. During 2003 to 2005, a double garage, driveway and associated siteworks were constructed on the site.

2.6 The surface water from the upstream property discharges from the site through four outlets into the natural gully. Three of these outlets were constructed when the double garage was built in 2004. The surface water from a common driveway leading to the upstream property discharges at a corner of that site into a sump.

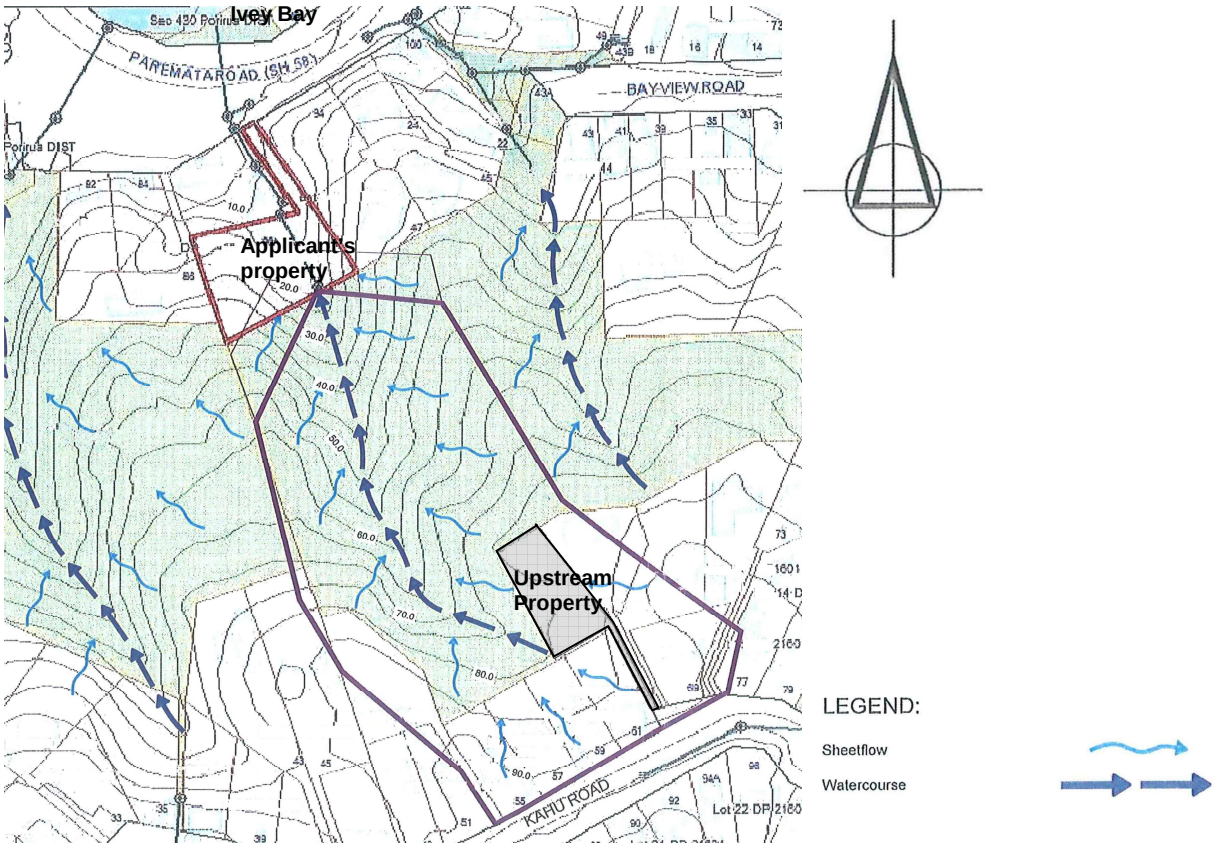

Figure 1: Site plan of the reserve showing the properties

3. The background

3.1 The applicants began corresponding with the authority regarding surface water matters in 2001. At that time a cause of the problem was determined to be a joint dislocation in the 225mm surface water pipe. In a letter to the applicants on 5 October 2001, the authority noted that along with the joint repair, work would be undertaken to extend the intake structure. Also mentioned was the intention to construct a secondary flow path to prevent surface water bypassing the inlet structure, intended to alleviate the flooding to the applicants' property.

3.2 In 2002, the authority issued a building consent for a double garage, driveway and associated siteworks to be constructed on the upstream property. The construction of the building work continued to 2005. The authority does not appear to hold any records in relation to this consent.

3.3 The applicants emailed the authority on 1 July 2003, describing flooding that had taken place on their property as a result of debris from the reserve blocking their culvert and requesting the authority rectify the matter.

3.4 On 14 October 2003, the authority's lawyers wrote to the applicants, stating that the authority had not undertaken any work to the reserve that would lead to any unnatural water run-off from the reserve onto the applicants' property. Any water run-off from the reserve onto that property was 'completely and entirely natural' and the applicants were obliged to receive such naturally flowing water and mitigate any damage caused by it.

3.5 The applicants emailed the authority on 5 January 2005, stating that their property had been flooded again as a result of debris from the reserve blocking the culvert.

3.6 In October 2006, the applicants wrote to the authority stating that:

- On 29 October 2006, the debris traps installed to collect debris from surface water run-offs onto the reserve had failed during heavy rain, and this had resulted in the applicants' property being flooded.
- The culvert was clogged by bark and cone debris from clear felling on the reserve and this was the prime reason for the flooding.
- Provided that the debris traps functioned correctly, the culvert and the pipe leading from them would cope with the current water volumes from the reserve.
- Water-flow increases caused by new building works on Kahu Road that had been approved by the authority were anticipated to 'one day be the reason for further flooding'.

3.7 The applicants emailed the authority on 25 April 2009 regarding works being carried out in the reserve to widen a track at the top of the gully directly above their property. The applicants expressed concern that the hard surface would increase the speed and volume of surface water flowing into the reserve. They also noted that the original watercourse had been moved some four metres sideways and this change to the water path would disturb a new area of debris.

3.8 The applicants emailed the authority on 29 April and 24 July 2009 to report flooding of the property. The email of 24 July 2009 noted that the damage was caused 'by the "accelerated" runoff from Kahu Rd'.

3.9 The applicants advise they complained to the authority and the regional council[5] about possible surface water pollution at various times in 2006 and 2009. During 2009 an independent testing laboratory verified the presence of faecal coliforms in samples taken by the applicants on three occasions from a watercourse above their property.

3.10 An application for a determination was received by the Department on 17 June 2010.

4. The submissions

4.1 General

4.1.1 Submissions were received from the applicants, the authority (through their lawyers) and the upstream owners. The submissions are outlined below and I have considered these submissions in this determination.

4.2 The applicants

4.2.1 In a covering letter addressed to the Department dated 14 June 2010, the applicants summarised their concerns as:

- The property received natural flows of surface water flowing from the reserve until 2002.

[5] Greater Wellington Regional Council

- Since 2002 the volume and velocity of the surface water flows has increased significantly.
- The three 100mm diameter pipes exiting directly into the reserve from the upstream property is responsible for the increase of flow and volume of water which has caused flooding of the property.
- They had experienced six serious floods in the past seven years and did not accept that these were "natural servitude" events.
- The authority did not consult the applicants as an affected party prior to approving the building consent for the works on the upstream property and had underestimated the amount of additional surface water runoff.

4.2.2 The applicants emailed the Department on 10 August 2010, providing further information regarding:

- The flood pattern – the sequence of debris filling the traps and blocking water flow into the culverts.
- A change to the watercourse path – slips in the reserve have diverted runoff away from the sumps.
- Sewerage pollution and water sample test results – stream testing identified contaminated water.
- The original surface water line at the property – the original surface water pipes have not been moved and are appropriate for the property. A building consent was approved for extension work at the property in 1979.

4.2.3 The applicants also recorded that:

- The authority did not obtain the required resource consent for the "bund/intake" work in the watercourse in 2001/2.
- The systems at the bottom of two catchments in the reserve are listed in the authority's works programme for increased volume capacity upgrades. Both systems experienced landslips around 2004.

4.2.4 The applicants supplied copies of:

- a record of rainfall history and flood events
- a site plan of proposed alterations and additions to No 63 Kahu Road dated 11 December 2002
- contoured plans of the local catchment area
- correspondence between the applicants and the authority
- two analytical reports on collected water samples as undertaken by an independent testing laboratory
- various photographs showing interior and exterior aspects of the property and the adjacent reserve.

4.3 The authority

4.3.1 The authority's lawyers wrote to the Department on 30 July 2010 and summarised the problem as being the inability of the applicants' private drainage system to deal with water flowing naturally from the reserve onto their property at times of high rainfall.

4.3.2 The authority and the applicants' consultant engineers had advised that the 225mm pipe was adequate to deal with a 10-year design flow. However, when the flow exceeds that level, provision is required to divert the surface water around the house. The authority had improved the upstream inlet at its expense and had offered to undertake further improvements on the basis that the applicants improved drainage on their property. As the building consent for upstream property allowed surface water to be conveyed to outfalls in a natural watercourse, the authority was of the opinion that the water flows though the reserve were not altered.

4.4 The upstream owners

4.4.1 The upstream owners wrote to the Department on 21 July 2010, and I summarise their comments as follows:

4.4.2 The pipework discharging from the upstream property was installed as part of development work undertaken in 2004. Previously, the surface water from the property had flowed into the natural watercourse at a single point. The flow of water passing through the new pipes (refer paragraph 2.6) was no greater than was the case previously and surface water now discharged at three points into the watercourse.

4.4.3 Surface water flowed into the gully from several properties and almost all this water enters the gully 'upstream' of the upstream owner's surface water pipework. Water from the properties adjoining the upstream owner's does not flow through the upstream property's driveway. Other contributory factors included the impermeably of the unpaved ground surface, the removal of trees and vegetation over the years, and discarded rubbish.

4.4.4 From NIWA statistics the upstream owners concluded that there had been a decline in the average rainfall that fell on the gully area. This led the owners to believe that the increased surface water flow was likely due to an increase in the ferocity of downpours.

4.4.5 The upstream owners supplied copies of:

- a map showing the sections adjacent to Kahu Road
- photographs showing surface water flows
- NIWA rainfall statistics.

4.4.6 The upstream owners provided further information to the Department on 8 August 2010 which described further sources of water entering the gully.

5. The draft determination and resulting submissions

5.1 The draft determination was issued to the parties, and to the persons with an interest in the matter, for comment on 29 November 2010.

5.2 The authority did not accept the draft determination and, in a submission to the Department dated 14 December 2010, the authority's lawyers commented on the draft. The authority accepted the final decision made in the determination, but subject to the following matters, which I summarise as:

- The matter for determination must specifically relate to the building work carried out at the upstream property, which consisted of the 'garage and associated site works carried out on the upstream property'.
- The authority reserved its position as to whether the natural watercourse and the drainage entering it could be regarded as an NUO[6] system but stated that the NUO did not fall within the definition of a "building" or "building work" as defined in the Act.
- The authority did not accept that the additional surface water flowing from the upstream property and onto the applicants' property was caused by the inadequacy of the drainage system itself. Rather, it was caused by the lack of capacity in the piping and related work that had been constructed on the applicants' property to channel water from the natural drainage system on the reserve. This work was carried out 'without [the authority's] knowledge, authorisation, or acceptance'. This was further compounded by other modifications made to the property, such as landscaping.
- The authority had carried out extensive investigations in conjunction with independent laboratory testing organisation regarding the alleged contamination present in the surface water flows. The authority could not identify any network failures, overflows, or cross-connections that would cause contamination. Accordingly, the authority was of the opinion that any contamination could not be attributed to any network issue or failure.

5.3 The applicants did not accept the draft determination and provided a submission dated 16 December 2010 that clarified certain background aspects, which I have taken into account. I summarise the other main points raised by the applicants as follows:

- There were no flooding issues until the consented building work was undertaken on the upstream property. The piped water course through the applicants' property, that had been constructed prior to the original house being built, appeared to have been adequate until the latest consented work was undertaken on the upstream property.
- The applicants concur that it is the reserve's intake system, commencing with the debris traps, that fails first and starts the flooding sequence. If that system is free of debris it copes with the increased water capacity.

[6] Network Utility Operator

- It is the authority's responsibility to properly manage any increase in the original flow in the watercourse so that it does not cause nuisance to properties adjoining the reserve.
- The reserve's surface water system is now inadequate and is unable to cope with and/or dispose of the additional flow, or control debris in the watercourse, resulting directly from issuing of the building consent to the upstream property. This is causing an unacceptable nuisance to the applicants and the property.
- It was not believed that the surface water discharging from the upstream property complied with "approved outlet" conditions.
- The applicants did not accept the authority's test results in regard to the sewerage pollution of the surface water because samples were taken under dry conditions and from a wrongly identified site.
- The applicants listed reasons why they considered that the reserve's water system was now not adequate and why the authority had changed the 'historical position' of the system. Though I have not listed them in this determination, I have carefully considered these reasons. The applicants believed that the authority was using their private surface water system, which was not capable of accepting the increased surface water flow and debris, to connect the reserve's public utility system through the applicants' property to the outflow into Ivey Bay.
- The applicants were of the opinion that the building consent issued for the upstream property did not 'fully comply with the Building Code because the increased [surface water] flows, which the [authority] says are being conveyed to an "approved outlet" … causing a long standing and well documented nuisance to [the applicants'] property'.

5.4 The upstream owners did not accept the draft determination and provided a submission that was dated 17 December 2010 and which suggested certain minor amendments that I have considered. The other main points raised in the submission I summarise as:

- The upstream owners noted that the applicants' evidence indicates that increased surface water run-offs were observed from 2002 onwards and that this date is prior to commencement of the building works on the upstream property.
- The upstream owners reiterated their opinion that, as a result of building work that had taken place on the upstream property, there had been a reduction rather than an increase in the surface water run-off.

The submission also referred to the expert's report and these comments are listed in paragraph 6, which relates to that report.

5.5 The authority's lawyers responded to the applicants' submission in a letter to the Department dated 14 January 2011, noting that a number of the matters raised were outside the scope of the determination. Comments on matters relevant to the determination are summarised as follows:

- The authority, with the agreement of the applicants, installed a proper intake and debris traps on the reserve and the associated additional piping had to be installed to match the existing size pipework (approximately 225mm) that existed on the applicants' property. These actions did not exacerbate any existing problem relating to the flooding on that property.
- Clause E1 does not refer to an "approved outlet" but rather to an "appropriate outfall".
- The authority confirmed that it owned and managed the reserve.

5.6 In an email to the Department dated 20 January 2011, the applicants responded to the authority's letters of 29 November 2010 and 14 January 2011 as summarised below:

- The applicants claim that the authority had concerns regarding the watercourse's limited volume capacity and the potential for flooding prior to 1997 and up to 2003.
- The storm water system's outfall must have the capacity to cope with the maximum stormwater volumes being directed to it. As the current reserve "outfall" does not have that capacity and cannot cope with the increased volume or ensuing debris, it is not an appropriate "outlet".
- The discharge of water, silt and debris from the reserve onto the applicants' property was the direct result of the authority's approval of the building consent issued for the upstream property.
- The authority constructed the debris traps and pipe from the reserve and, while it denied at the time that it had done anything to increase the water flows, it must have known in 2003 that the system was inadequate.
- The water in the reserve drainage system has been concentrated by work carried out by the authority following the commencement of regular flooding events. At no time had the applicants 'ever altered or constructed any part of the Reserve intake piping system leading through the boundary to [the applicants'] culvert'.

5.7 Submissions relating to the pipework passing through the applicants' property

5.7.1 The Department asked the authority to comment on the sizes of the pipes that carry surface water through the applicants' property. A consultant engaged by the authority provided a response in a Memorandum, forwarded to the Department on 25 January 2011.

5.7.2 The consultant noted that, based on current model flows, the current 225mm pipe can only cater for a flow generated by a 2 to 5-year event. A 300mm replacement pipe would cater for flows experienced in a 1 in 10-year event, providing the intake structure is not impeded by debris. To cater for a normal restriction in the inlet, it would be necessary to install a 375mm pipe. A 450mm pipe would cater for all scenarios caused by a 1 in 50-year event. Any increase in pipe diameter (e.g. to 375mm) would need to be continued through to the harbour outlet.

5.7.3 The consultant concluded that the problems on the applicants' property had arisen because the natural flow down the gully had been piped through that property and had restricted that flow.

5.7.4 The applicants responded to the Memorandum in an email to the Department dated 25 January 2011.

5.7.5 The applicants noted that the surface water pipes on their property were in place prior to 1993 and they were of the opinion that the flooding commenced in the reserve upstream from their property.

5.7.6 The applicants were also of the opinion that the authority was unable to control the increased surface water flow and debris, and that any increase in pipe size would not alleviate the surface water flooding.

5.8 While I have not fully described all the content of all the submissions, I have carefully considered the relevant comments made by the parties and have amended the determination as I consider appropriate.

6. The expert's report

6.1 General

6.1.1 As described in paragraph 1.7, I commissioned a firm of consulting engineers to provide me with a report regarding the affected property and the surrounding areas. A senior civil engineer from this firm with expertise in the field of hydraulics ("the expert") inspected these locations on 10 and 11 August 2010 and reviewed the relevant documents held by the authority.

6.1.2 The expert produced a report dated August 2010 that described the background to the dispute, the topographical site data, and the properties in question. Attached to the report were contour plans, calculations, and photographs. I summarise the salient points of the report as follows:

6.2 The properties

6.2.1 The expert was of the opinion that the flooding of the applicants' property is likely to occur when the inlet structure (as described in paragraph 2.3) is blocked or is subjected to a flow greater than its capacity. These events will cause surface water to spill over the weir and onto the applicants' property. Surface water from the east and west embankments will also flow onto the site below the inlet.

6.2.2 The lack of a defined flow-path through the property will result in surface water progressing across the rear of the property and, being constrained by the dwelling and site works, becoming concentrated at the rear of the dwelling so that it may enter the building. In the expert's opinion, the construction carried out on the site over time may have exacerbated the severity of the flooding effect within the property.

6.2.3 When the expert investigated the upstream property, the common access way sump serving several Kahu Road properties (refer paragraph 2.6) was blocked by debris. The expert was of the opinion that this would cause surface water run-off to pond at this location, which would then run overland on a similar path to the alignment of the discharge pipe from the sump.

6.2.4 The expert also noted that the four surface water outlets discharging from the upstream property are 'positioned in a spread in order to prevent concentration of flows at one location and to minimise nuisance'.

6.3 The surface water flows

6.3.1 The expert undertook calculations to ascertain the capacity of the inlet at the property and the effect the upstream development may have had on volume flow to the pipe inlet. The calculations were based on site conditions and assessed run-off from roofs, driveways and paving as well as the reserve catchment. These calculations, given in litres per second of run-off from the relevant areas, gave the following results:

Situations based on a 1-in-10 year storm event	**Run-off conveyed l/sec**
Catchment of 2.24 Ha totally undeveloped and covered in native bush	152
Catchment of 2.24 Ha with upper areas containing residential properties (i.e. the developed catchment)	200
Pre-development run-off from the upstream property	6
Post-development run-off from the upstream property	13
Estimate of run-off relating to the 2004 development of the upstream property	4
Surcharge over headwall of 225mm pipe inlet for the developed catchment	99
Surcharge over headwall of 225mm pipe inlet if catchment area undeveloped	48

6.3.2 The expert was of the opinion that the work recently carried out by the authority in the reserve had not concentrated the surface water runoff from the reserve.

6.3.3 The expert undertook calculations, based on inlet controlled conditions with a fully functional inlet free of debris, to determine whether the pipe and inlet above the applicants' property had the capacity to receive run-off from the contributing catchment. The expert found that the pipe system inlet was insufficient in size and configuration to adequately convey surface water run-offs without surcharge over the weir for:

- either a 10 year average recurrence interval ("ARI") storm event, or
- a storm event greater than 30mm/hr, which is less than the 49mm/hr that can be expected in a 1 in 2 year event.

For a 1-in-10 year storm event, the surface water flow would surcharge over the headwall of the inlet at a depth of 0.19m for the developed catchment state.

6.4 Conclusion

6.4.1 The expert concluded that the surface water, which was "collected or concentrated" by building work carried out on the upstream property and the properties adjoining it in a 1-in-10 year storm event, had marginally increased the rate of run-off (from between 4-8%) onto the reserve and onto applicants' property.

6.4.2 The expert also commented on the perceived nuisance occurring on the applicants' property and the adequacy of that property as it exists at present to avoid damage and nuisance. As these are matters that are my responsibility to determine, and which I

consider in paragraph 7, I have not included them in the above summary of the expert's report.

6.5 The authority's response to the expert's report

6.5.1 The authority, via their legal advisers, responded to the expert's report in a letter to the Department dated 29 September 2010. The major concern set out in the submission was in regard to the expert's references to adjoining properties other than the building work that had taken place at 63 Kahu Road. The authority was of the opinion that the determination should be specific only to the latter property. In addition, the authority considered that the inadequacies of the applicants' on-site drainage systems were not matters relevant to the determination.

6.5.2 The authority accepted that the conclusions reached in the expert's report were useful if used in the correct context. It was not clear as to which particular properties were covered by the expert's opinion that there was 'an increased rate of discharge of surface water'. The authority accepted the observation that the flows from 63 Kahu Road have resulted in a 'minimal additional nuisance', but could not reconcile this with the expert's conclusion that Clause E1 had not been complied with.

6.5.3 The authority did not agree with the expert's conclusion that the 'subject site development has increased the flow by between 4 and 8% from the head of the catchment leading to the affected property'. Further, it was noted that the derived percentage increase appeared to be related to the entirety of the building work that had been carried out on the 63 Kahu Road property.

6.5.4 Finally, it was noted that the expert's report did not consider the rights of a landowner to discharge to a natural water course.

6.6 The upstream owners' response to the expert's report

6.6.1 In a letter to the Department dated 21 October 2010, the upstream owners commented on the expert's report as follows:

- The expert's calculations should have been based on the effects of the development that was approved in the 2002 building consent.
- As the redirection of stormwater previously discharging into the sewer occurred in 1990, it could not relate to the latest building development.
- The upstream owners were concerned that there were no authority records relating to the latest building consent.
- The site plan referred to by the expert was not the correct one. Accordingly, the actual driveway area was less than shown in the expert's report.
- The upstream owners also referred to what they considered to be anomalies in the labelling of some of the photographs supplied by the applicants.

6.6.2 In their comments on the draft determination (see paragraph 5.4) the upstream owners also addressed the expert's report as follows:

- The expert's conclusion did not take into account the reduction of surface water run-off resulting from work undertaken by another upstream owner.

- The inaccuracies listed by the upstream owners regarding the expert's report has resulted in a perceived increased surface water run-off rather than what the owners considered to be a decreased run-off.
- The upstream owners noted that the expert's calculations were estimates based on assumptions.

6.6.3 I referred the upstream owners' comments to the expert, who responded in an email to the Department dated 17 January 2011. The expert noted:

- The increase in the surface water flow as determined in the report was limited to the work undertaken in the early 2000s.
- The expert was not aware of any reduction in run-off due to the redevelopment of another upstream site.
- As there were no records relating to the early 2000 building works on the upstream property, the expert had used the only plan and site areas that were available. The expert would reconsider the areas and comments made if an updated plan was provided.

7. Discussion

7.1 The application of the Clause E1

7.1.1 As Clause E1 is enacted in terms of the current and former Building Acts, I am of the opinion that only building work undertaken from 1 July 1992 can be considered as being relevant to the matter to be determined. In this respect, the garage and associated site works carried out on the upstream property in 2004 is the relevant building work.

7.1.2 Clause E1.3.1 requires surface water resulting from an event having a 10% probability of occurring annually, and which is collected or concentrated by buildings or siteworks, be disposed in a manner that avoids the likelihood of damage or nuisance to other property. As Clause E1.3.1 relates only to surface water entering another property, I do not accept that any building work carried out on the upstream property before 1 July 1992 is relevant in terms of that Clause.

7.1.3 I also consider that the reference to "other property" in Clause E1.3.1 applies to any property or properties even if they are some distance from where building work was carried out.

7.1.4 I now need to consider whether the surface water entering the applicants' property has created a nuisance or caused damage in terms of Clause E1. In so doing, I note that the terms "nuisance" and "damage" are not defined in the Act or in the Building Code. In paragraph 6.5 of Determination 2003/4, the predecessor to the Department, the Building Industry Authority ("the BIA"), noted that:

> The [BIA] agrees with the territorial authority that nuisance must be considered in the broadest sense of the word.

I continue to hold that view and believe it is relevant to this situation.

7.1.5 The common law definition of nuisance is 'the interference with an individual person's use or enjoyment of land or of some right connected with that land', which in this case relates to the ingress of surface water from adjoining properties onto the applicants' property.

7.2 The surface water flows

7.2.1 The applicants have stated that there was a noticeable increase in the volume and velocity of the surface water flowing onto their property from 2002. I am prepared to accept that this surface water intensity has occurred on several occasions since 2002.

7.2.2 The expert is of the opinion that in a 1-in-10 year storm event, the increase in run-off attributable to the building work carried out on all the adjacent upstream properties is 48 l/sec over that from an undeveloped catchment (200 l/sec compared with 152 l/sec). The expert also estimates that the building work carried out on the upstream property since 2004 adds a further 4 l/sec to that property's surface water run-off in a 1-in-10 year event. This is approximately 8% of the additional flow attributed by the expert to the total building work on all the relevant upstream properties.

7.2.3 I consider that this relatively minor increase in flow does not make a major contribution to the flooding problems, which are almost entirely the result of the surface water flowing from all the other upstream properties. Nor does the additional 8% change the nature of any existing nuisance. The amount of surface water going into the reserve from the upstream property, if considered in isolation from the remaining adjacent properties, would easily be accommodated by the exiting surface water disposal system.

7.2.4 Once discharged into the reserve, the water effectively enters a "drainage system" where it is ultimately collected and concentrated by drains, sumps, and debris traps. I note that the drainage system within the reserve would appear to constitute a NUO system, which is not defined as "building work" in terms of section 9(a) of the current Act, and therefore is not subject to the requirements of Clause E1.

7.2.5 The total surface water catchment above the applicants' property is large and steep with significant subdivision having occurred since the 1950's including roading across the gully that is likely to have altered the watercourses. The recent removal of vegetation from the catchment will have increased the surface water flow rates.

7.2.6 In heavy rainfall events water is discharged from the reserve onto the applicant's property. Based on the evidence that I have considered, it appears that this drainage system, in particular the system inlet, does not have sufficient capacity to receive present water flows. This is further exacerbated by material caught in the debris traps. In my view, it is the inadequacy of this drainage system that is the cause of water entering the applicant's property.

7.3 Contamination of the surface water

7.3.1 I share the applicants' concerns regarding the contamination of the surface water that is being discharged into the reserve (refer paragraph 3.9). Though the authority maintains that following further investigation it has not been able to locate any source within the existing systems that would contribute to this, I suggest that as this may constitute a health concern this situation be carefully monitored in the future.

7.4 Conclusion

7.4.1 I do not consider that the additional surface water flows from the upstream property are disposed of in a way that creates a nuisance to the applicant's property in terms of Clause E1 of the Building Code. The upstream property is legitimately

discharging water into the reserve, and it is the inadequacy of that drainage system that is causing water to enter the applicant's property.

7.4.2 I consider the additional flow from the upstream property to be a minor contributing factor that cannot be considered a nuisance in terms of Clause E1.3.1.

8. The decision

8.1 In accordance with section 188 of the Act, I determine that the surface water flowing onto the applicants' property from the upstream property, as a result of consented building work on the upstream property, is not likely to cause a nuisance in terms of Building Code Clause E1 Surface water.

Determination 2010/72 was signed for and on behalf of the Chief Executive of the Department of Building and Housing on 1 April 2011.

John Gardiner
Manager Determinations

Appendix A: The relevant legislation

A.1 The relevant sections of the Building Act are:

7 Interpretation

other property –

(a) means any land or buildings, or part of any land or buildings, that are--

(i) not held under the same allotment; or

(ii) not held under the same ownership

(b) includes a road

A.2 The relevant provisions of Building Code Clause E1 Surface water are:

PERFORMANCE

E1.3.1 Except as otherwise required under the Resource Management Act 1991 for the protection of other property, surface water resulting from an event having a 10% probability of occurring annually and which is collected or concentrated by buildings or siteworks, shall be disposed of in such a way that avoids the likelihood of damage or nuisance to other property.

E1.3.1 Surface water resulting from an event having a 2 percent probability of occurring annually, shall not enter buildings.

Clarification of Determination 2011/027 regarding surface water runoff onto other property at 90 Paremata Road, Porirua

1. Background

1.1 This clarification of Determination 2011/027 is made by me, John Gardiner, Manager Determinations, Department of Building and Housing ("the Department"), for and on behalf of the Chief Executive of that Department, under section 189 of the Building Act 2004 ("the Act").

1.2 The application for Determination 2011/027 ("the Determination") was received on 17 June 2010, under Part 3, Subpart 1 of the Act. The Determination was made on 1 April 2010.

1.3 The parties to the determination were:

- J and D Phillips, the owners[7] of a property at 90 Paremata Road ("the applicants")
- the Porirua City Council, carrying out its duties and functions as a territorial authority and a building consent authority ("the authority"). The authority is acting through a firm of lawyers ("the authority's lawyers")

1.4 The owners of an upstream property at 63 Kahu Road, G and J Purdie, were considered to be persons with an interest in the matter to be determined ("the upstream owners").

1.5 I considered that the matter for determination was whether surface water flowing onto the applicants' property from the Ivey Bay Reserve ("the reserve") was

- a result of consented building work on the upstream property, and
- likely to cause damage or a nuisance in terms of Clause E1 Surface water[8] of the Building Code.

1.6 The determination found that the surface water flowing onto the applicants' property from the upstream property, as a result of consented building work on the upstream property, is not likely to cause a nuisance in terms of Building Code Clause E1 Surface water.

2. The application for clarification

2.1 I received an email dated 7 April 2011 from the applicants seeking a clarification of the determination in terms of section 189 of the Act. The clarification request was in regard to paragraph 2.3 of the final determination that said:

> A 225mm pipe installed by the applicants extended this system further upstream. …

[7] In terms of section 176(e)(i)

[8] In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

2.2 The applicant stated that they had not altered the stormwater system in any way and that the reference to the pipe being "installed by the applicants" was incorrect.

2.3 On 18 April 2011 the authority, through its lawyers, responded to the applicants' request for a clarification. The authority noted that the matter raised was not key to the outcome of the Determination. However, the authority went on to provide its own view of the facts relating to the installation of the pipe stating that the pipe was installed around the 1950s by the then owner.

2.4 The authority also included further background information regarding the pipe by way of a 'suggested clarification'. In an email to the Department on 18 April the applicant disputed the views put forward by the authority. I note here that the details regarding when the pipe was laid, who undertook the work, and the location of the 225mm pipe in relation to the boundary at the time it was laid, have no bearing on the determination decision and I do not consider this matter further.

2.5 The upstream owners responded to the clarification request and the authority's submission in a letter dated 2 May 2011. The upstream owners made no comment on installation of the 225mm pipe, but raised a further matter for consideration. The upstream owners noted that paragraph 3.2 of the determination stated that 'The authority does not appear to hold any records in relation to [the consent for works on the upstream property].'

2.6 The upstream owners submitted that the authority, through its lawyers, had confirmed that the building consent was issued in 2002. The upstream owners submitted they had copies of the consent and had sighted the consent in the authority's database.

2.7 Copies of a draft clarification were forwarded to the parties for comment on 9 May 2011.

2.8 The parties accepted the draft clarification with the final response received by the Department on 25 May 2011. The authority and the applicants both reiterated their views as to the installation of the pipe.

3. The legislation

3.1 Section 189 of the Act says:

> The chief executive may, within 20 working days after making a determination, amend the determination to clarify it if--
>
> (a) the chief executive… on the application of a party to the determination, considers that the determination requires clarification; and
>
> (b) the clarification is either--
>
> (i) not material to any person affected by the determination; or
>
> (ii) agreed to by the parties to the determination; and
>
> (c) no appeal against the determination is pending.

3.2 I am treating the applicants' email of 7 April 2011 as an application for clarification under section 189 of the Act.

4. Discussion

4.1 In respect of the laying of the 225mm pipe, I note that the draft determination that was issued to the parties and persons with an interest on 29 November 2010 did not refer to the applicants as having installed the pipe. Submissions received subsequent to the issue of the draft determination also did not make any reference to the applicants installing the pipe.

4.2 I accept that the determination requires clarification. However, as noted by the authority in its letter of 18 April 2011, this matter has no effect on the determination decision. I therefore propose that the words "installed by the applicants" are removed from paragraph 2.3 of the determination.

4.3 In respect of the building consent records for the work on the upstream property referred to in paragraph 3.2 of the determination, I note that I have not seen the building consent or any other records relating to this work. However, I accept the submission from the upstream owners, and propose that the last sentence is removed from paragraph 3.2 of the determination.

5. Clarifying amendments to the determination

5.1 In accordance with section 189 of the Act, I hereby amend Determination 2011/027 as follows:

- Paragraph 2.3

  The words "installed by the applicants" are removed.

- Paragraph 3.2

  The sentence "The authority does not appear to hold any records in relation to this consent" is removed.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 30 May 2011.

John Gardiner
Manager Determinations