*Determination No. 2004/42*

# *Surface Water Runoff onto Other Property*

## 1 BACKGROUND

1.1 The matter before the Authority is whether the discharge of surface water from building work onto other property complies with clause E1.3.1 of the building code (the First Schedule to the Building Regulations 1992).

1.2 The applicant is the owner of a property onto which it is alleged surface water is discharging from two "upstream" properties. The other parties are the territorial authority and the owners of the two upstream properties.

1.3 In making its determination, the Authority has not considered any other aspects of the building code.

## 2 THE BUILDING WORK

2.1 The building work in question has been constructed on two sites upstream of the applicant's property. One of these sites contains a house that has been altered over time (Property A), and the other site contains a house that has been converted into a rest home (Property B).

2.2 Property B runs east-west and has a road frontage on its western boundary. Property A, also runs east-west and, is located immediately to the east of Property B. Property A includes a long drive ("the drive") which runs the full length of the Property's B northern boundary. The eastern and northern boundaries of Property B are common with Property A.

2.3 The applicant's property runs north-south and its northern boundary abuts the southern boundary of Property A, over the south-eastern corner of Property A.

2.4 The land falls generally from west to east and from north to south so that the applicant's property is lower than Property A, which is turn is lower than Property B.

2.5 The relevant building work on Property A comprises drainage work that has been carried out over a number of years and which is associated with:

- Internal and external alterations carried out in 1990 and 1994,
- A new garage and paved areas constructed in late 1996, and
- A new swimming pool constructed in early 1999.

2.6 The relevant building work on Property B comprises drainage work as follows. Roofed areas are piped via a "siphon system" to the road kerb. The siphon system, which is necessary due to insufficient falls, comprises a fully sealed system that relies on the actual height of water in the downpipes to enable discharge to the road kerb. The remainder of the site comprises a car park along with paved and grassed areas all of which drain to a 16 metre long x 1.2 metre wide x 0.6 metre deep soakage channel ("the soakage channel" or "the soakage trench") located at the eastern end of the site, behind the rest home and in close proximity to the common boundary with Property A. The car park is at the front (to the west) of the rest home and nearest to the road kerb. The car park falls to a sump located near the property's northern boundary. The car park sump discharges to the soakage channel by a drain which runs parallel to the northern boundary. Other sumps located to the north and south of the rest home also run and discharge to the soakage channel. This work was subject to a building consent in June 1999 and was constructed shortly after this date.

2.7 The applicant has taken the view that the method of surface water discharge from both Property A and Property B, contravenes the relevant performance requirement of the building code, namely clause E1.3.1. The territorial authority disagrees with this proposition. The owners of Properties A and B each believe their respective drainage provisions to be adequate, however, the owner of Property A considers Property B's drainage to be inadequate.

## 3 THE LEGISLATION

3.1 The relevant performance of the building code is:

**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.

## 4 THE SUBMISSIONS FROM THE PARTIES AND THE CONSULTANT'S REPORT

### 4.1 General

4.1.1 The Authority received three submissions in the form of written reports from the applicant, one written submission and various correspondence from the territorial authority, letters from the owners of both Property A and Property B and a video provided by the owner of Property A.

### 4.2 The Applicant

4.2.1 The applicant noted the following:

- "There is no public stormwater catchment within the area."

- "A natural watercourse leads out of the bottom of [the applicants property's] servicing road run-off and any flows from surrounding properties."

- "[The applicant's property] has always received natural flows due to its position. The [applicant] undertook measures in mid-1980 to intercept and divert this run-off."

- "Flows onto the site have progressively increased since 1992."

- "It is considered developments at [Property A and Property B] have attributed to the increase of flows onto this site."

- "At times flooding within the basement of applicant's property have [sic] been between 60mm-100mm."

- "Numerous approaches to the Territorial Authority have been made by the owners"

4.2.2 In a letter to the territorial authority, the applicant advised that it did not accept that building work on Properties A and B complied with all necessary requirements, or that the water being passed onto its own property resulted from natural flow. The applicant considered it should not "have to accept gross overland flows from paved, sealed areas or drainage systems that Council has consented to".

4.2.3 In its submissions the applicant provided detailed information outlining its considerations and investigations, including all the information that it could obtain from the territorial authority together with a video taken by the owner of Property A. Photographic evidence was also included showing surface water flooding on the applicant's property and inside the applicant's building. To further substantiate its claims, it engaged a land surveyor, who produced a plan identifying the ground levels and surface water flows in the area concerned. The plan showed surface water flows being directed to the south eastern corner of Property A and from there onto the applicant's property.

In its submissions to the Authority the applicant said:

*With respect to Property A*

Concerns centred on work carried out in 1996 involving:

- "Construction of garage"
- "Development of paved areas"
- "New stormwater drainage"

The drainage work involved:

- "Installation of apron drains in the driveway and in the front of garage"
- "Roof water disposal – downpipes"
- "New 100 mm stormwater drains laid down the northern boundary"

- "New 100 mm stormwater drains laid towards the southern boundary"

"The flow is concentrated and collected at the south eastern corner of the house into a sump. Observations have shown two pipes leading in and one out …" "The flow out is to the lower southern boundary neighbouring [the applicant's property]. The accumulation of this flow is disposed into the ground (not an approved system) and ends up in [the applicant's property]."

"In earlier submissions it was assumed disposal was through a soak hole – we now retract that submission. All investigations and inquiries have failed to reveal any approved disposal system."

*With respect to Property B*

The applicant submitted calculations to establish the total surface water discharged from the site and the adequacy of the soakage channel. In establishing the total runoff, the applicant's took notice of the runoff received from a higher property and from the grassed areas on the site. However, in terms of the main points relating to the sizing of the soakage channel, the applicant:

- Considered that areas of paved surfaces collecting water that discharges into the channel had been underestimated by 19%.

- Noted that the design basis for the channel was the 5-year event rather than "an event having a 10% probability of occurring annually" as described in Clause E1.3.1, or in other words, the 10-year event.

In addition, the applicant noted that the soakage channel was located adjacent to a retaining wall built on the boundary between Properties A and B and also that the invert of the channel was above the level of the adjacent ground level of Property A. The applicant contended that as a direct result of this invert level, surface water discharging through the soakage channel into the ground simply spilled through the retaining wall onto Property A. The video evidence submitted clearly showed surface water pouring through the retaining wall onto Property A even in light rainfall events.

## 4.3 The Owners of Properties A and B

4.3.1 In a letter, the owner of Property A advised:

"Also enclosed is a copy of code compliance certificate for the work carried out in 1996. Our swimming pool has also been inspected and signed off. The paved driveway and area at the front of our house was laid in 1998, however when we built the garage in 1996 the paved area in front of the house was lifted to meet all necessary building codes. Extensive drainage is installed under this area."

4.3.2 In a letter, the owner of Property B submitted that the building work undertaken, together with the construction of the soakage channel, would lessen the amount of surface water being discharged onto neighbouring properties. In particular, it noted:

"As the roof area of the existing building is considerably bigger than the original building, and stormwater from this area is now being directed to the road, there is less ground surface stormwater to be disposed of, than prior to 1999."

"[A]s plans will show, a long and deep soakage trench was installed at [Property B], to alleviate stormwater from washing directly into any of the surrounding sections."

## 4.4 The Territorial Authority

4.4.1 Prior to this Determination application being lodged, the territorial authority had responded to the applicant's concerns in a series of letters.

*With respect to Property A*

The territorial authority said that it was "satisfied that the disposal of stormwater complies with the requirements current at the time of construction".

Later, the territorial authority said:

"We can also find no evidence of any drainage or runoff affecting your property that is not a natural flow, or a flow that you are obliged to accept as the downhill property or does not comply with the appropriate Building Codes."

"As previously conveyed to you there are steps that you could take within [the applicant's property] to address all your drainage concerns. We would recommend that you engage a registered engineer or experienced drainlayer to provide you with advice on this matter to ensure that the overall improvement desired is achieved."

"We do not accept that the Council has any obligation to contribute to these works. Nor do we accept that [the applicant's property] is materially different from any other property in the city."

"There is nothing about [the applicant's property], at this time, which requires remedial works to comply with any building codes for drainage".

*With respect to Property B*

The territorial authority noted the following points:

- An acknowledgment that there is no public surface water disposal system in the area of Property B. Further it had to prioritise provision of same within its area and that "there are presently no plans to upgrade stormwater systems in [this location]"
- The calculations used were based on used rainfall intensity, run-off coefficients and storm return periods from the territorial authority's Engineering Quality Standards,
- The option of ground soakage was approved as being "an approved method in the Building Act",

- Run-off from other properties had to be expected, and even if a public surface water system was installed this would only cater for a 5-year event, and
- A satisfactory level of service had been put in place.

4.4.2 In a response to the application for a Determination, and with regard to Property B, the territorial authority advised the Authority as follows:

"Building Consent was issued on 22 June 1999 to allow construction of Rest Home Development at [Property B], but not before the Consent processing team had been assured that stormwater issues satisfied the Building Code."

"As stormwater disposal services in the [Named] Borough are extremely limited, the applicant was required to have a soakage trench designed by a suitably qualified person as to cater for the disposal of stormwater from off the car park area. The stormwater from off the roof of the large building was disposed of into the kerb and channel by means of a pressurised system of downpipes."

"Council felt that it has approached this matter in a most professional way and feels that the water problems experienced would be no worse than before."

4.4.3 Later, the territorial authority set out its general drainage methodology. It stated that where there was no public surface water drain, it endeavours to drain as much "hard standing" area as possible to the street. The rest "must then be 'dispersed/discharged' on site in a manner that does not create a nuisance to inferior properties". The territorial authority noted that Property A was "inferior" [downstream] to Property B and that the applicant's property was inferior to both. The territorial authority then made specific references to Properties A and B.

*With respect to Property A, the territorial authority:*

- Noted that prior to 1996, the stormwater discharge was to a soak pit on the site that was near the boundary of the applicant's property and while a number of complaints had been received regarding surface water discharge from Property A, considered this situation no worse "than a large number of catchments throughout the city".

- Noted that work associated with the installation of a garage increased the impervious areas only marginally. However,

  "A new soak trench was installed on the south eastern corner of the house which was designed to better collect overland flow from their driveway.

  The cumulative effect was a slightly greater 'impervious' surface that was being collected but being discharged in an improved manner"

- Advised that the installation of the swimming pool was not considered to add to the surface water disposal problems as discharge from the pool was via the wastewater system. Further, it was considered that the pool actually improved the

surface water run-off situation as it provided a collection area for rainfall without the need for discharge.

*With respect to Property B, the territorial authority*:

- Advised Resource Management Act requirements noting that

  "However as part of the assessment of the stormwater, the District Plan Rules did not permit us to have the stormwater system upgraded as the increase in impervious surfaces was adequately mitigated. The application did show an improvement of effects.".

- Noted the following:

  "i) Difference in impervious area.

  Although the building and car parking had been extended, the complete roof was now being collected and discharged to the street.

  ii) The existing soak trench was not deemed to be suitable, but with a smaller area to be catered for and a registered engineer's certification for a new larger trench, approval was given.

  iii) Change in effects

  Although the total impervious area has been increased significantly by having the roof water going to the street, the nett area has been significantly reduced. Together with a new larger [soakage] trench, a significant improvement has been obtained."

- Noted that drainage from the roof was via a "siphon system", regarding which it said:

  "The siphon system was installed and 'passed' as being compliant at the time of the Code of [sic] Compliance Certificate. Subsequently it was brought to our attention that significantly more water than had been expected, was discharging onto [Property A]. This has now been identified as the siphon not working due to holes having been punched through the siphon. With the siphon not working, this almost trebles the quantity of water going through the [soakage channel] than it was designed to cope with."

  "Council has now issued an instruction to the owners of [Property B] to fix the situation. Council has been advised that the drainlayer who originally installed the siphon has been instructed by the owner to carry out the necessary repair works."

## 4.5 The draft determination

4.5.1 After considering the submissions from the parties the Authority prepared a draft determination which was sent to the parties, who were asked to indicate whether they accepted the draft (subject to non-controversial corrections) or wished the Authority to hold a formal hearing.

4.5.2 The applicant accepted the draft. The territorial authority and the owners of Properties A and B did not. In the course of responding to the Authority's draft determination new and conflicting information, as outlined below, was presented.

4.5.3 In light of the new information received the Authority decided to engage a consultant ("the consultant") to visit the applicant's property and Properties A and B. The visit was to be during a significant rainfall event and the consultant was to report its observations of the actual performance of the drainage systems installed on Properties A and B.

## 4.6 New information

*The owner of Property A:*

4.6.1 Maintained that the soakage channel is of inadequate depth and forwarded photographs taken during its construction. It believed that the channel was not cut 600 mm into the existing ground as it should have been but instead was constructed virtually entirely in fill material. It noted:

"… every time we have rain the council approved [soakage] trench [at Property B] disperses rainwater across the original ground level and under the retaining wall [on our common boundary] directly onto our property… We also receive water coming up to the surface through our cobblestoned area at the front of our property during a rainfall, which can only come from the [soakage] trench [on Property B]. The combined water … then flows down the side of our property and onto [the applicant's property]…"

4.6.2 Expressed the view that the siphon system is undersized and unreliable noting that it "did not work from day 1 . . . This results in overflowing of the guttering, and further increases the surface water being directed into the inadequate [soakage] trench".

4.6.3 With respect to the drainage provisions on its site noted:

"The apron drains, southern and northern storm water drains and down pipes for roof water are connected via the sump situated at the south eastern corner of the house and the flow out is now directed away from the southern boundary (adjoining the applicant's property), unlike the site plan [previously submitted to the territorial authority] . . . This flow out is now directed down the centre of our property, away from the applicant's boundary, and connected to an extensive soak trench to the eastern side of the pool complex, which was excavated at the time of the pool site excavation. This extensive soak trench is approx 20 cubic metres and in the centre of our property, well away from any neighbouring properties . . ."

*The owner of Property B:*

4.6.4 Believed that the drainage provisions on its property were adequate and considered all problems were attributable to the siphon system noting:

- "the flooding was diagnosed as being caused by a damaged or ill fitting plumbing connection in the roof run-off pipes. Repairs to the [siphon system] were completed in April 2003".

- "Since then, diligent monitoring has been conducted of the storm water in [Property B] during heavy rains. Lawns have been mowed regularly and no wheel marks or muddy patches have been observed over the soakage trench, which is now working as was originally planned".

*The territorial authority:*

4.6.5 Reiterated it previous view that "we are dealing with an existing nuisance that was present before the Building Act 199 came into effect" and that "All consented works have been carried out in full accordance with all relevant regulations and has resulted in a reduction of overland flow". The territorial authority also noted that it is bound by the Resource Management Act 1991, as well as the Building Act, and considered that the Resource Management Act 1991 "to be a highly relevant issue that must be considered in this determination".

4.6.6 Noted the following:

- "There has always been a problem with water and . . . this may be the result of a 'spring'. At a recent site inspection, after heavy rain, water was cascading from the retaining wall in the drive at a point closer to the road than the [soakage] trench".

- "It is acknowledged that there appears to be some discrepancy regarding the depth of the [soakage] trench, which was validated by third parties, as Council did not inspect the works. If it is not in accordance with the agreed installation depth, then Council will ensure that this is addressed". In relation to this matter the territorial authority noted advice it had received from Property B's consulting engineer that led it to believe that the soakage channel was 2.5 m deep over a 1.5 m length and, at least, 300 mm into original ground over the remainder of its length. It also forwarded calculations supporting its view that the sizing of the channel was adequate for the 10 year event and allowing for a 19% increase in catchment (as considered necessary by the applicant, see 4.2.3 above).

- "Council will now be seeking from the owners of [Property A] an application for 'unconsented works' with respect to the private drainage that, they have now advised . . . ". In relation to this and without knowing the details of the installed work the territorial authority noted the view that if the works had been installed as advised by the owner of Property A that "The natural contours would mean that this water would not enter the applicant's property".

- "The damage to the [siphon] system was in fact discovered to be a pipe that had never been connected to the system and these are the works that have now been rectified". In relation to this Property B's consultant advised that it was recently discovered "that the plumber had not hooked up one downpipe and the likelihood is that all the roof water has been discharging to ground [and then to the soakage channel] rather than [to the road kerb as designed]".

### 4.7 The consultant's report

4.7.1 The consultant inspected the properties, and reported its findings, on two separate occasions. The rainfall event that occurred on the day of the first inspection was more severe than the 10 year event required by Clause E1.3.1 and therefore a second inspection was considered necessary.

4.7.2 The rainfall that occurred on the day the first inspection was described by the consultant, based on local weather station records and intensity graphs produced by the territorial authority, as "a 1 year event for the 10 minute duration and a 20 year event for the 60 minute duration". The consultant described the rainfall that occurred on the day of the second inspection as "less than 1 year event for the 10 minute and 60 minute duration".

4.7.3 Based on the E1 Approved Document the consultant noted that the siphon system needed to be checked for "a 10 year return period 10 minute duration" and the soakage channel for "a 60 minute duration 10 year return period storm". The consultant therefore considered that the rainfall event on the first day was larger than required by the building code for the design of the soakage channel and that on both days the events did not adequately test the siphon system.

4.7.4 On both days the consultant observed surface water discharging over Property B's boundary onto adjoining property, including Property A. The consultant observed surface water discharging over Property A's boundary onto the applicant's property but only on the first day. On both days the consultant noted surface water flows arriving at the applicant's property but noted that this resulted from a number of sources and was not limited entirely to that from the drainage systems put in place on Properties A and B.

4.7.5 In respect of the first inspection the consultant advised:

"1) The gutter siphon system at [Property B] did not overflow during our visit and water was discharging from the kerb outlet onto [the street]. Stormwater was noted to leave the road channel, flow over the original [road] crossing of [Property B] and then to the drive of [Property A]. A new crossing has been built in the centre of [Property B], but the original crossing at the northern end remains in place. If the crossing was removed this water could be directed along [the street] by the kerb & channel.

"2) The [sump] in the carpark of [Property B] did not have the capacity for the rainfall with the carpark becoming flooded. Adjacent to the [sump], water flowed onto the drive of [Property A] from the base of the retaining wall. The water ponded around the [sump] did eventually drain away via the [sump] once rain had stopped.

"3) The downpipe at the north eastern corner of the [house immediately to the south of Property B] overflowed. Considerable flow was noted on the footpath on the southern side of the rest home building [Property B]. This was collected by a [sump which] was able to handle all the runoff directed to it.

"4) A steady stream of overland flow was noted crossing from [Property B to the property immediately to the south to it. This flows in a easterly direction across other sites] and then to [the applicant's property]. It is unknown if this was from the soakage trench on [Property B] or was runoff directly coming from [the property immediately to the south of it]. However there was a noticeable amount of water puddling at the base of the retaining walls on the eastern and southern boundaries of [Property B], and this water would find its way to [the applicant's property].

"5) There is a retaining wall running along the boundary between [Property B] and the drive to [Property A]. As noted in 2), runoff entered the drive at the location of the [carpark sump]. Runoff also enters the drive where the retaining wall is boxed around a Cabbage tree. As this area is in close proximity to the soakage trench the runoff appears to come from the soakage trench. It is expected that a draincoil runs behind the retaining wall. The water observed could, although unlikely, be from this. However a second Cabbage tree box out is located further up the drive, so water from the draincoil behind the retaining wall is more likely to be intercepted here and directed onto the drive. There is little water leaving this area.

"6) The downpipe to the north western corner of the garage at [Property A] was overflowing. This runoff joined that from the drive and runoff from the hard stand area on the west of the house and flowed around the southern side. A channel drain on the southern side of the house intercepts the water where it is then piped to a [sump] at the south eastern corner of the house. [The sump] here is unable to accommodate the flow. The water ponds around this [sump] and then is discharged as a small stream onto [the applicant's property] . . .

"8) Considerable overland flow was reaching [the applicant's property]. Approximately two thirds came from the north western corner (ie part of [Property B's] runoff) and one third at the south western boundary [from other properties].

"9) After the rainfall had stopped there was seepage through the retaining wall at the north eastern corner of [Property B]. However the amount of water entering [Property A] was insignificant compared to that described above. The owner of [Property A], recorded this seepage on a video. They found this seepage to be a nuisance.

"Manukau City Council have provided a calculation to demonstrate that the siphon system meets the Building Code. The calculations need to be checked, although we agree with the 1.8m available head.

"In summary the runoff from [Property B] forms a nuisance, as does the runoff from [Property A] . . . on [the applicant's property]"

4.7.6 In respect of the second inspection the consultant advised:

"We noted the following where reference numbers are for the same items as for the [first inspection noted in 4.7.5 above]:

"1A) The gutter siphon system at [Property B] Street did not overflow during our visit and water was discharging from the kerb outlet onto [the street]. The road channel was only one third full and no flow crossed to the drive of [Property A].

"2A) The [sump] in the carpark of [Property B] did have the capacity for the rainfall within the carpark. Adjacent to the [sump], water flowed onto the drive of [Property A] from the base of the retaining wall.

"3A) The downpipe at the north eastern corner of the [house immediately to the south of Property B] did not overflow. This [sump] on the southern side [Property B] was able to handle all the runoff directed to it.

"4A) No overland flow was noted crossing from [Property B to properties to the south of it]. There was some seepage, but no definable stream as noted in 4). This leads us to believe that the majority of the flow noted in 4) comes from [the property immediately to the south of Property B] and runoff from the grassed areas on [Property B].

"5A) There is a retaining wall running along the boundary between [Property B] and the drive to [Property A]. As noted in 2), runoff entered the drive at the location of the drive [carpark sump]. Runoff also enters the drive where the retaining wall is boxed around a Cabbage tree. As this area is in close proximity to the soakage trench the runoff is likely to come from the soakage trench.

"6A) The downpipe to the north western corner of the garage at [Property A] was not overflowing . . .

"8A) Overland flow was reaching [the applicant's property] of about one third the volume noted on [the day of the consultants first inspection]. A rough approximation is that two thirds came from the north western corner (ie part of [Property B's] runoff) and one third at the south western boundary [from other properties].

"9A) There was no seepage through the retaining wall at the north eastern corner of [Property B] at this time. It was noted that water was bubbling up between the paving stones on the hard stand area on the west of [Property A]. This area is just below the soakage trench on [Property B] and that is the probable source of this water. This occurrence had been report by the owner of [Property A] and was probably happening on [the day of the consultant's first inspection] but was masked by the rainfall on that day.

"From the inspection made it appears that there is a direct connection between the soakage trench and the retaining wall backfill at the location of the cabbage tree. There is also some doubt regarding the carpark [sump]. We note that we have not been on site for a rainfall event as intense as 10 minute duration 10 year event, so the siphon system has not been tested, although the problem described in 1) occurs. However the overland flow from such low intensity rainfall events as occurred on [the day of the consultant's second inspection] is

understandably more of a concern to residents of the area."

## 5 THE AUTHORITY'S VIEW

5.1 The Authority is concerned that it is being called upon to decide on code compliance certificates some 4 years after their issue. However, in this instance, the Authority has decided that this Determination will proceed as the matter has been the subject of on-going correspondence between the applicant and the territorial authority. This decision should not be taken to mean that in the future the Authority would automatically accept a determination request where there has been a considerable delay from the time that the alleged non-compliance occurred.

5.2 Section 7(1) of the Act states "All building work shall comply with the building code to the extent required by [the] Act". The Authority is of the opinion that any new work undertaken on Property A or Property B under the Building Act regime must comply with the building code, in this case Clause E1.3.1, in respect of the effect of surface water discharge onto other property. What this requires is that the drainage systems installed on the properties cater for all surface water flows from "an event having a 10% probability of occurring annually", or in other words, the 10 year event, that are artificially collected or concentrated on the site by building work, including drainage work, or via paved areas and the like associated with building work.

5.3 In another Determination, (97/006) the Authority noted in respect of Clause E1.3.1 that:

"The clause applies only in respect of the 10% probability event. In that event, the clause requires only that surface water collected or concentrated on one property shall not be likely to cause damage or nuisance to other property. For the purposes of this determination only, the Authority is prepared to assume that if water overflows onto other property then that water is likely to cause damage or nuisance."

In this particular case, the Authority considers that such an assumption does not need to be made as the applicant's submissions and the consultant's report have clearly demonstrated that a nuisance has occurred.

5.4 The Authority is of the opinion that the territorial authority has not concentrated on whether the new work undertaken on the properties was code compliant. Rather, the territorial authority seems to have concentrated on the fact that the new work has not made things worse than they were before. The Authority accepts that the territorial authority may have a limited potential to upgrade the existing drainage system or to provide a fully reticulated system. However, the Act does not allow for such discretion, unless the territorial authority decides to waive or modify the requirements in accordance with section 34(4). In the instant case, the territorial authority does not appear to have done so.

5.5 Despite the territorial authority's specific request for it do so, the Authority takes the view that it cannot address the issues relating to the Resource Management Act in the context raised by the territorial authority. It, therefore, expresses no opinions in this respect.

5.6 ***Property A***

5.6.1 From the submissions it is clear that extensive drainage work has been carried out on this property from around 1996. This drainage work is "building work" in terms of the Act and, whether or not performed under a building consent, must be code compliant.

5.6.2 Surface water coming down the drive and collected in front (to the west) of the house is directed to a sump located adjacent to the south eastern corner of the house. The owner advised in its latest submission of further, and apparently unconsented, drainage work which pipes this water away from the common boundary it shares with the applicant and directs it to an "extensive soak trench" which is located "in the centre of our property, well away from any neighbouring properties" (see 4.6.3 above).

5.6.3 The Authority notes the consultant's advice that the sump overflowed to the applicant's property in sustaining the 20 year event but not in the 1 year event. The performance then of the drainage provisions in the required 10 year event is uncertain especially considering that it is obviously coping with additional flows from Property B. Notwithstanding this, the Authority notes it has not been forwarded any details of the drainage provisions on the site nor has it been advised of any investigations that may have been conducted substantiating code compliance.

5.6.4 The Authority, therefore, has no basis on which to be satisfied as to compliance with clause E1.3.1 of the drainage work installed on Property A.

5.7 ***Property B***

5.7.1 The issues here revolve essentially around three aspects namely the siphon system, the soakage channel and the car park sump.

*The siphon system*

5.7.2 It appears that the siphon system had been unreliable in the past but it is contended that the problem, only recently diagnosed, has now been found and remedied. The system appeared to be functioning satisfactorily on the days it was inspected by the consultant although the consultant noted neither event fully tested the system.

*The soakage channel*

5.7.3 In the course of this determination, technical information regarding the design and adequacy of the soakage channel was forwarded by the parties. There was debate as to the size of the catchment, the design rainfall event, the ground soakage rates and the required storage volume.

5.7.4 The owner of Property A did not provide technical argument but maintained that the soakage channel was not deep enough, advised of ongoing problems with surface water since its construction and provided video evidence of water pouring through the retaining wall on its common boundary with Property B.

5.7.5 The depth of the soakage channel is a key consideration and one on which the Authority has received conflicting information. The early submissions indicated that it was relatively shallow with its invert being above the adjacent ground level on Property B. This, however, was contested in the territorial authority's later submissions (see 4.6.6 above).

5.7.6 The consultant was not asked to ascertain as-built details but rather to observe and report the performance of the drainage systems in place. The consultant's report clearly showed that the soakage channel is not code compliant as even on the day of the second inspection (being a lesser event that required by the building code) surface water was observed flowing onto Property A. In this regard, the consultant noted water flowing onto the drive (see Items 5) and 5A) of 4.7.5 and 4.7.6 above respectively) as well as water bubbling up through the ground in front of the house on Property A (see Item 9A of 4.7.6 above).

5.7.7 The consultant also noted water seeping through the retaining wall as had been recorded on video by the owner of Property A. This, however, only occurred on the day of the first inspection so it is not clear if it would occur in the lesser event required by the building code.

5.7.8 The territorial authority in its submissions noted the presence of what it considered to be a "spring" flowing onto the drive. What appears more likely is that the soakage channel and material behind the drive retaining wall, in which the car park sump drain runs, are in direct contact meaning that water from the soakage channel is spilling out directly onto the drive.

5.7.9 The construction of the soakage channel, including its depth, needs further investigation but it is clear that water from the channel is finding its way onto Property A. The Authority therefore concludes the soakage channel does not comply with Clause E1.3.1.

*The car park sump*

5.7.10 No submissions were received in relation to this sump, however, the consultant on both occasions observed water flowing from its base onto the drive.

5.7.11 The reason for this could be water backing up in the soakage channel or it could a failed connection between the sump and the drain leading away from it. Either way, this points to non compliance with Clause E1.3.1.

## 5.8 Conclusion

5.8.1 The Authority considers it clear that surface water from Property B, required by Clause E1.3.1 to be catered for, is finding its way onto other property and causing a nuisance.

5.8.2 The detail and the adequacy of the constructed drainage provisions on Property A are, however, uncertain and need to be checked. It is not for the Authority to advise how this is to be done nor what action the territorial authority should take in respect of what it notes as being 'unconsented works'. Although the Authority cannot be more definite as to the code compliance of the drainage provisions on Property A it notes

that their performance can only be improved if the drainage provisions on Property B are brought to compliance with the building code.

5.8.3 The consultants report notes surface water arriving at the applicant's property from sources other than Property A or B. These other sources are not the subject of this determination and hence are not discussed further other than to mention their existence. In the course of its further considerations of the drainage provisions on Properties A and B the territorial authority may care to consider the other properties that are contributing to surface water flows on the applicant's property.

## 6 THE AUTHORITY'S DECISION

6.1 In accordance with section 20 of the Building Act:

(a) The Authority hereby determines that the discharge of surface water from building work on Property B constitutes a nuisance and as such does not comply with clause E1.3.1 of the building code.

(b) The Authority hereby requires the territorial authority to withdraw that part of the code compliance certificate that was issued for the building work on Property B relating to the discharge of surface water onto other property, and that this be replaced with a notice to rectify in terms of section 42 of the Act.

(c) It is not for the Authority to decide how defects are to be rectified or to determine the extent of the work that should be rectified. These matters are for the owner to propose and for the territorial authority or building certifier concerned to approve. Similarly, it is not for the Authority to direct the territorial authority or building certifier as to what will amount to reasonable grounds on which it may be satisfied as to compliance with the building code.

Signed for and on behalf of the Building Industry Authority on 20 August 2004.

John Ryan
Chief Executive