

# Determination 2024/067

**Regarding compliance and decisions in relation to building work to construct four new dwellings with Clause E1.3.1 as it relates to the protection of other property at 32 and 32A Wolsley Avenue, Milford**

## Summary

This determination concerns building work associated with the construction of four new dwellings. The determination considers the compliance with Clause E1.3.1 of the Building Code in relation to protection of other property from surface water.

It also considers the issue of three building consents, and whether there were grounds to issue a notice to fix in relation to the compliance of the building works with Clause E1.3.1.

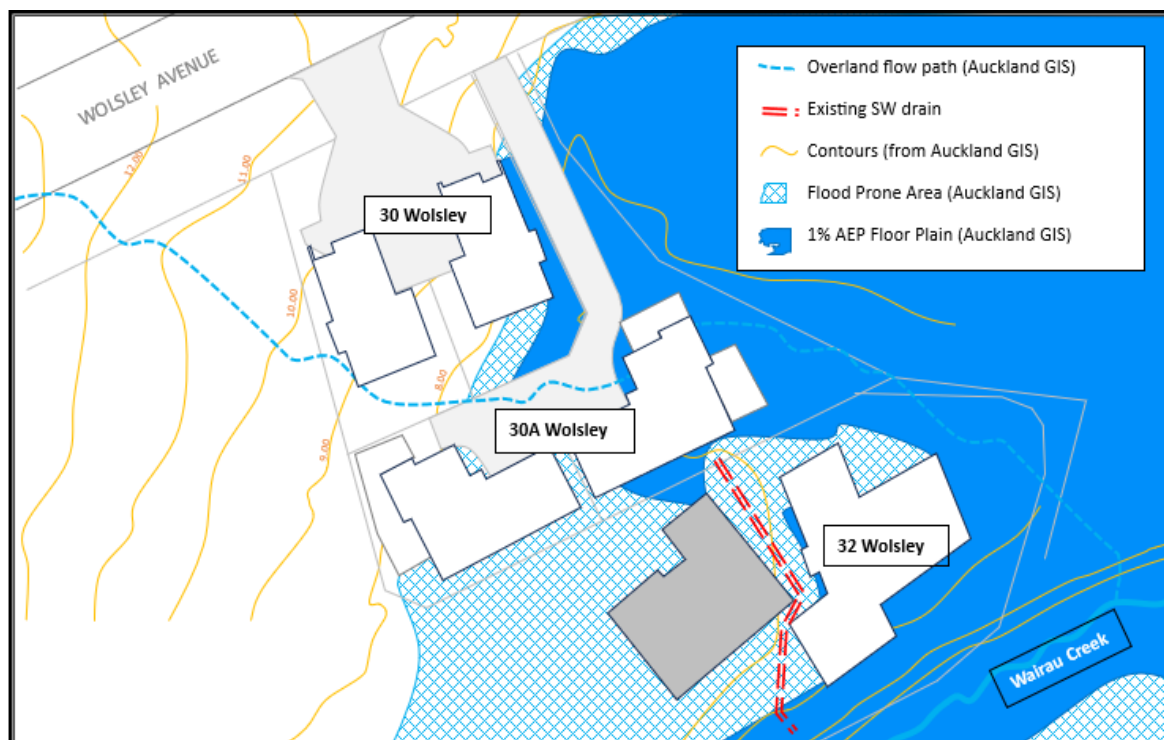


Figure 1: Site plan showing 30, 30A and 32 Wolsley (not to scale)

In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.

The Act and the Building Code are available at [www.legislation.govt.nz](http://www.legislation.govt.nz). Information about the legislation, as well as past determinations, compliance documents (eg, Acceptable Solutions) and guidance issued by the Ministry, is available at [www.building.govt.nz](http://www.building.govt.nz).

## 1. The matter to be determined

- 1.1. This is a determination made under due authorisation by me, Peta Hird, Lead Determinations Specialist, for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment (“the Ministry”).<sup>1</sup>
- 1.2. The parties to the determination are:
  - 1.2.1. the owner of the property at 30A Wolsley Avenue (‘30A Wolsley’), N Grainger (“the owner of 30A Wolsley”)
  - 1.2.2. the owner of the property at 30 Wolsley Avenue (‘30 Wolsley’), G Watkin (“the owner of 30 Wolsley”)
  - 1.2.3. V Klepatski (“the neighbour”) who is the owner of the neighbouring properties at 32 and 32A Wolsley Avenue (‘32 Wolsley’). The neighbour applied for this determination and is a party under section 176(e)(i).
  - 1.2.4. Auckland Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.
- 1.3. I also consider the engineering firm that carried out the design for surface water management for the 30 and 30A Wolsley Avenue development, Chester Consultants Limited (“the engineer”) to be a person with an interest in the determination.
- 1.4. This determination arises from building work associated with the construction of four new dwellings at 30 and 30A Wolsley Avenue.
- 1.5. The neighbour is concerned that building consents granted for the construction of the four new dwellings included a design for stormwater management that uses the drain on his property. They are concerned the design of the stormwater management system and the obstruction of existing overland flow paths<sup>2</sup> by the building work does not comply with Building Code Clause E1 Surface Water as it relates to the protection of other property. The neighbour is of the view that because of the design, stormwater will flow onto his property and cause damage and/or nuisance.

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<sup>1</sup> The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

<sup>2</sup> Overland flow paths are routes taken by water when the man-made drainage network is overloaded.

- 1.6. The matters being determined are limited in this case by the applicant's status as a party under s176(e)(i) as the "owner of the other property" and so only concern matters that involve "a provision in the building code that has the purpose of protecting other property".
- 1.7. The matters to be determined, under section 177(1)(a) and 177(2)(a) and (f), are:
  - 1.7.1. whether the building work as proposed in building consents BCO10306878, BCO10314216, and BCO10314224 demonstrated compliance with Building Code clause E1.3.1 as it relates to protection of other property<sup>3</sup>
  - 1.7.2. the authority's decision to issue those three building consents (only with regard to compliance with E1.3.1 in relation to the protection of other property)
  - 1.7.3. whether, at the time of the application for determination, there were grounds to issue a notice to fix for non-compliance with Clause E1.3.1 in relation to the protection of other property.
- 1.8. Following the application for determination, the design of the surface water system was changed. I have not considered this change to the building work in the assessment of compliance; the compliance assessment is of the building work as originally proposed and approved when the building consents were first issued. However, I have taken this change into account in exercising my power under section 188(1)(a).
- 1.9. The applicant has raised a wide range of concerns about the building work, including compliance with the conditions on the resource consent, and compliance of the building work with E1.3.2. I have not considered resource consents or other approvals under Resource Management Act 1991; any references to matters under that legislation are for context only. As noted above, consideration of compliance with the Building Code is limited to protection of other property.

## 2. The building work

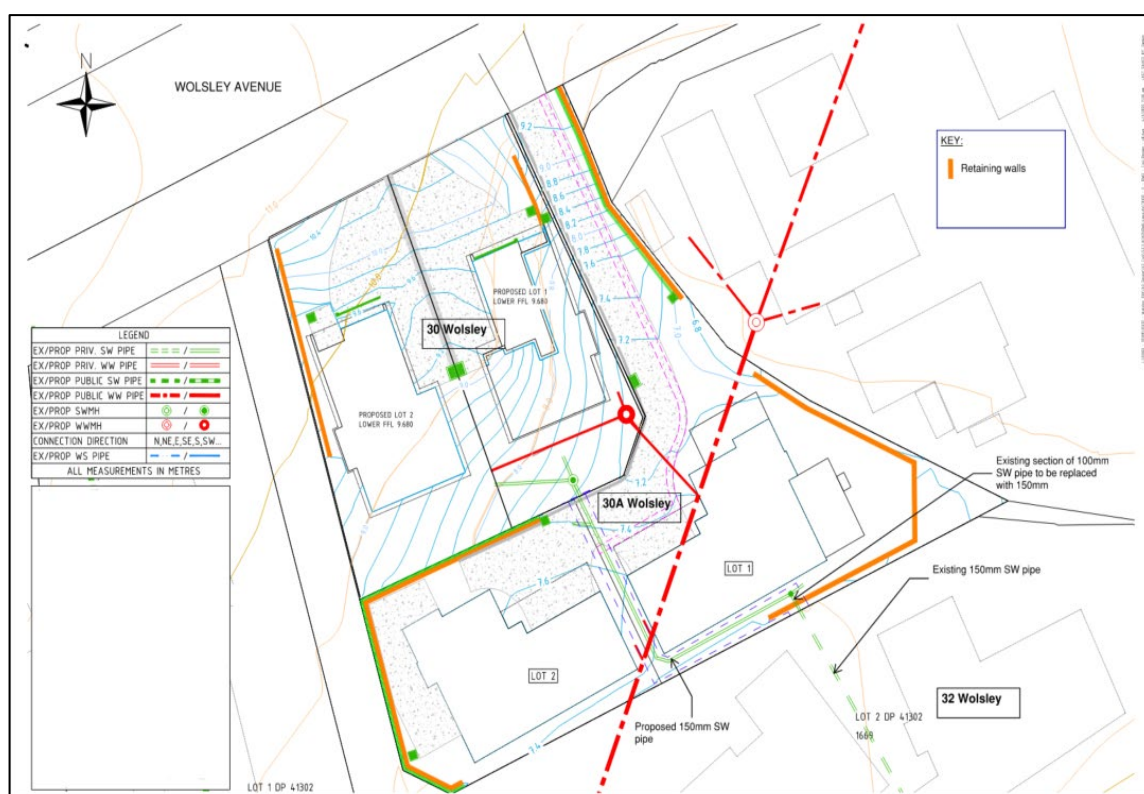
- 2.1. The development at 30 and 30A Wolsley Avenue comprises two existing residential properties to the south of Wolsley Avenue. 30 Wolsley is adjacent to the street and 30A Wolsley is the rear property, and they are 524m<sup>2</sup> and 725m<sup>2</sup> respectively. Each property previously had a residential dwelling.
- 2.2. The properties are on a southeast facing slope, descending towards the Wairau Creek located 25m south of the southern boundary of 30A Wolsley. Both properties have vehicle access provided by separate concrete driveways.
- 2.3. The authority's geospatial mapping information shows an overland flow path from Dallinghoe Crescent travels through the site in a northwest to southeast direction

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<sup>3</sup> As proposed at the time of the application for determination.

(see Figure 1). The overland flow path is estimated to have a catchment of approximately 7700m<sup>2</sup>, comprising residential, road and road reserve areas to the northwest of the development. The eastern half of 30A Wolsley and the southeast corner of 30 Wolsley is located within a flood plain.

- 2.4. The development consists of four residential dwellings – two dwellings on each property. The dwellings are two storey and constructed on concrete slab foundations. A channel has been formed on the eastern boundary of 30A Wolsley. Retaining walls were proposed along part of the length of the southeastern and southwestern boundaries of 30A Wolsley.
- 2.5. The proposed stormwater management system for the development consists of a new 150mm diameter drain on 30 and 30A Wolsley, connecting to what is described in the building consent as an “existing 150mm diameter private stormwater drain” at the neighbour’s property.<sup>4</sup> The connection to this drain was at or near the boundary of 30A Wolsley and 32 Wolsley, and the downstream end of the drain is within Wairau Creek.



**Figure 2: Stormwater connection at boundary of 30A and 32 Wolsley Avenue**

- 2.6. For each dwelling, stormwater detention tanks collect the stormwater from the downpipes and discharge to the existing 150mm diameter private stormwater drain that runs through the neighbour’s property. The 30 Wolsley dwellings have 1000L

<sup>4</sup> The new drain on 30 and 30A replaces an existing 100m diameter drain that was connected to the private drain on the neighbour’s property. It is unclear at what point the drain transitioned from 100mm to 150mm.

above ground tanks and 30A Wolsley have 2920L underground detention tanks. The overflow for both tanks also discharges to the 150mm diameter private stormwater drain.

### 3. Background

- 3.1. Subdivision consents were issued for 30 and 30A Wolsley in 2020.
- 3.2. On 14 July 2020, the authority issued building consent BCO10306878 for the construction of the two new dwellings at 30A Wolsley. The building consent documentation included:
  - 3.2.1. a 'Stormwater Mitigation Report' dated 28 April 2020, prepared by the owner's engineer ("the 30A Wolsley Avenue Stormwater Mitigation Report"), which includes a design for the stormwater mitigation for the property
  - 3.2.2. a 'Land Development Report' dated 3 April 2020, prepared by the owner's engineer ("the 30A Wolsley Land Development Report"), which includes an assessment of the existing stormwater network and a capacity assessment for the property
  - 3.2.3. a 'Flood Risk Assessment' dated 24 April 2019, prepared by the owner's engineer ("the 30A Wolsley Flood Risk Assessment").
- 3.3. On 8 March 2021, the authority issued building consent BCO10314216 for the construction of a new dwelling at 30 Wolsley. The consent was for the dwelling on the eastern side of the site. On 10 March 2021, the authority issued building consent BCO10314224 for the construction of a dwelling at 30 Wolsley on the western side of the site. The building consent documentation for these consents included:
  - 3.3.1. a 'Stormwater Mitigation Report' dated 21 April 2020, prepared by the owner's engineer ("the 30 Wolsley Stormwater Mitigation report"), which includes a design for the stormwater mitigation for the property.
  - 3.3.2. a 'Land Development Report' dated 29 June 2020, prepared by the owner's engineer ("the 30 Wolsley Avenue Land Development report"), which includes an assessment of the existing stormwater network and a capacity assessment for the property and a flood risk assessment.
- 3.4. The 30A Wolsley Flood Risk Assessment and the 30 Wolsley Land Development report, which also included the flood risk assessment for the property, stated:
  - 3.4.1. Based on existing flood information, the 100-year ARI maximum flood level at 30A Wolsley is estimated at RL 7.30. This is based on the flood

extent outline and interpolation between nodes with levels reports as RL 6.54 and RL 8.16 respectively.<sup>5</sup>

- 3.4.2. The flooding can be characterised as a result of the low-lying land on which that the site is located, plus the compounding factor that the site is located near a confluence between Wairau Creek and an overland flow path from the north.
  - 3.4.3. One of the 30A Wolsley dwellings is located within the fringe of the flood plain, so the body of the site needs to be lifted with a fill pad, supported by retaining structures, to at least the current estimated 100-year ARI flood level. At the eastern side of 30 Wolsley, 500mm freeboard for habitable floor levels above the estimated 100-year ARI flood level is needed.
  - 3.4.4. For 30A Wolsley, finished ground levels to be raised to minimum 7.3m RL and slope towards the southeast corner of the site in order to decrease the chance of pooling and to maintain existing overland flow path at the boundaries. Finished floor levels to be 7.45m RL (150mm minimum above the estimated flood level). The existing swale on the western side of the site to be maintained, and fences located within the overland flow path to be at least 70% void permeable, with no other structures to be placed within the overland flow path.
  - 3.4.5. For 30 Wolsley, finished ground levels to be 300mm lower than the proposed finished floor levels, to provide 150mm freeboard above the overland flow path. The driveway entry for the dwelling on the west side of 30 Wolsley to be sloped upwards before reaching the proposed garage to divert any sheet flow away, with a shallow channel formed down the proposed lot boundaries to divert sheet flow away.
- 3.5. The 30A Wolsley Avenue Stormwater Mitigation Report proposed a 2920L underground detention tank (0.8m diameter by 5.9m long) for each dwelling, to collect runoff from the roof areas and provide some attenuation to the stormwater flows before discharging to the outfall.<sup>6</sup> The report noted:
- 3.5.1. Due to the limited fall from the tank to the discharge point, the opening to the outlet for each tank is to be set 0.5m above the bottom of the tank to ensure sufficient fall from the tank outlet to the discharge point.

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<sup>5</sup> Average Recurrence Interval (ARI) is the average time between floods of a certain size. Reduced Level (RL) means the level in reference to a specified datum, in this case the Land Information New Zealand datum identified in Topographical survey by registered surveyor dated November 2017

<sup>6</sup> Attenuation being the temporary storage of storm water for a period of time, to then release to an appropriate outfall. The outfall in this case being the existing private drain across the neighbour's property.

- 3.5.2. This will result in a dead storage below the outlet with a net detention volume of 1000L above the outlet opening.<sup>7</sup>
- 3.5.3. The post development peak discharge from the site will be less than the pre-development peak discharge for the 10-year ARI rainfall event.
- 3.6. The 30 Wolsley Avenue Stormwater Mitigation Report proposed a 1000L detention tank, for each dwelling to collect from the downpipes. The report noted that:
- 3.6.1. The orifice for each tank was to be set at the invert of the tank and the overflow at the top of the tank.
- 3.6.2. The post development peak discharge from the site will be less than the pre-development peak discharge for the 10-year ARI rainfall event.
- 3.7. During 2020 and 2021, the neighbour corresponded with the authority about the development and issues they identified, in particular: the consenting process, the basis for the engineer's conclusions about the stormwater drainage system, the connection of the 30 and 30A Wolsley drainage system to the existing 150mm diameter private stormwater drain, and the obstructions to the overland flow path.
- 3.8. On 30 October 2021, the neighbour wrote to the authority about a visit from an officer of the authority which related to a complaint made by a member of the public about sediment discharge to Wairau Creek. The neighbour noted:
- 3.8.1. A large trench was excavated for an underground detention tank on 7 October 2021, and subsequent rain filled the trench and popped the detention tank up.
- 3.8.2. There is no secondary flow path<sup>8</sup> for 30 and 30A Wolsley as the pre-existing water course was filled and the site enclosed by a solid fence.
- 3.8.3. A previously installed stormwater drain connected to the existing private stormwater drain was used to drain the muddy water from the trench.
- 3.8.4. The existing 150mm diameter private stormwater drain on his property is being used for "illegal discharges to Wairau Creek and is not in compliance with conditional and temporary permissions."
- 3.9. On 9 November 2021, the neighbour wrote to the authority about the fence between his property and 30 Wolsley, which was completed during the week of 1 November 2021. The neighbour contends the retaining wall and fence above it create a solid obstruction to the overland flow path, and this is contrary to explicit conditions in the resource consent and building consent. The neighbour also said it

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<sup>7</sup> The applicant has disputed the net detention volume.

<sup>8</sup> Secondary flow paths are the path over which surface water will follow if the drainage system becomes overloaded or inoperative.

contradicts the authority's statement regarding the height of the retaining wall allowing water to flow over it.

3.10. On 13 December 2021, the neighbour wrote to the authority noting:

3.10.1. There is no longer reliance by 30 and 30A Wolsley on the existing 150mm diameter private stormwater drain across his property. A new stormwater drain through 28 Wolsley Avenue (east of the neighbour's property) was completed on 9 December 2021 and stormwater discharge from 30 and 30A Wolsley has been connected to this drain. The end of the private stormwater drain across 32A has been capped.

3.10.2. The "pre-existing natural watercourse has been compromised." Soil excavation has changed the contour on 28 Wolsley Avenue, and this will result in nearly the entire overland flow being effectively directed into his property.

## 4. Submissions

### The neighbour (applicant)

4.1. With respect to the connection to the existing 150mm diameter private stormwater drain as proposed and approved in the issuing of the building consents, the neighbour noted (in summary):

4.1.1. The connection to the existing private stormwater drain that runs across his property does not meet the requirements of the authority's 'Code of Practice for Land Development and Subdivision'.<sup>9</sup>

4.1.2. Their approval was not given for this connection.

4.1.3. While it is permitted to divert an existing overland flow path, the entry point and exit point from the property developed should not change.

4.1.4. Verification Method E1/VM1<sup>10</sup> requires provision of a secondary flow path.

4.2. With respect to the detention tanks, the neighbour noted:

4.2.1. It was incorrectly assumed that the pre-development discharge was being accommodated by the existing drainage system, with no overflow taking place. Calculations should have been carried out on a "first principles" basis to determine the capacity of the existing drainage system and compare this with the expected load.

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<sup>9</sup> The Auckland Code of Practice for Land Development and Subdivision. Chapter 4: Stormwater

<sup>10</sup> Verification Method E1/VM1 – Surface Water, amendment 11, effective 5 November 2020.



- 4.2.2. The capacity of the two detention tanks at 30A Wolsley does not mitigate the undersized existing 150mm diameter private stormwater drain which does not have capacity to service six houses.
  - 4.2.3. The pre-development catchment area for 30 and 30A Wolsley is misrepresented. For 30A Wolsley it should be an increase of over 380m<sup>2</sup> not 50m<sup>2</sup> as calculated by the engineer.
  - 4.2.4. The pre-development discharge calculated by the engineer for 30 and 30A Wolsley is 29.28 litres per second (l/s). However, the capacity of the existing 150mm diameter private stormwater drain is only 7.3 l/s, not taking account of the use of the drain by 32 and 32A Wolsley.
  - 4.2.5. CCTV inspections of the existing private stormwater drain shows it is blocked, so water from 30 and 30A Wolsley would not drain or would be severely restricted.<sup>11</sup>
  - 4.2.6. Based on E1/VM1, calculations of pre-development and post-development flow and pipe capacity show the required storage is at least 2.5 times what has been provided. However, E1/VM1 does not apply because free flow is restricted and specific design is required, indicating even greater storage is required.
  - 4.2.7. The detention tanks are undersized. There is also no secondary flow path, so overflow will be directed to the existing 150mm diameter private stormwater drain.
  - 4.2.8. The drainage system for 30 and 30A Wolsley therefore does not comply with Clause E1 of the Building Code.
- 4.3. With respect to the overland flow path, the neighbour noted (in summary):
- 4.3.1. The development of 30 Wolsley will obstruct the overland flow path. "A proper hydraulic analysis of the flow should have been carried out, rather than defining the flow as sheet flow with no basis."
  - 4.3.2. The retaining wall at 30A Wolsley along the boundary with 32 and 32A Wolsley obstructs the overland flow path. The flow will not be a sheet flow of no depth as claimed and the drainage for the retaining wall does not have capacity to accommodate significant surface water flow.
  - 4.3.3. The construction of the fence (between 30A and 32/32A) with gaps in it means surface water will discharge onto his property.

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<sup>11</sup> The applicant provided a copy of a CCTV inspection record dated 12 May 2016.

- 4.4. The neighbour acknowledged the change to the drainage system as installed but remained concerned that “a number of very flawed building consents had been issued”.

### **The authority**

- 4.5. The authority submitted (in summary):
- 4.5.1. As per the overland flow path analysis undertaken in the flood risk assessment report, it is assumed that any overland flow path will flow through the site as sheet flow rather than a concentrated flow path before combining with the surface water at the eastern half of the site during extreme rainfall events.
  - 4.5.2. As per the flood assessment in the land development report, although the overland flow path is expected to be contained within the kerb and channel of Wolsley, it may still overtop the kerb due to momentum when flowing around the road bend. As there are no incised channels on-site or in the above catchment that can channel overland flow it is estimated that it will be a sheet flow, with a shallow depth and wide extents, rather than a concentrated distinct flow path.
  - 4.5.3. Due to the upstream contributing catchment of the overland flow path not exceeding 4000m<sup>2</sup>, it falls outside the definition of an overland flow path under the District Plan.<sup>12</sup>
  - 4.5.4. The proposed retaining wall is cut into existing ground. Water sheet flow above the retaining wall will cascade over the retaining wall. As the proposed finished ground will continue to maintain the existing general slope, which has moderate slopes from northwest to southeast and is in line with the terrain in the local area, the development will not significantly alter the direction of sheet flow in such a manner that will “exacerbate the hazard” on neighbouring properties. It is not feasible to accurately define a specific entry and exit point for the overland flow, as there are no channels for the sheet flow.
  - 4.5.5. Stormwater from roofs and paved surfaces is to be collected in pipes and slowly discharged to the drain. This will not cause neighbouring properties at the downstream to experience additional surface water runoff onto their properties.

### **The owner at 30 Wolsley**

- 4.6. The owner at 30 Wolsley did not make substantive submissions but commented on the determination process.

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<sup>12</sup> Section J1 of the Auckland Unitary Plan.

## The owner at 30A Wolsley

- 4.7. The owner of 30A provided engineering documents, confirmed dates, and made comments on the determination process.

## The engineer

- 4.8. The engineering company provided the design reports for 30 and 30A Wolsley.

- 4.9. They stated:

The determination of the pre-development watershed and post-development watershed for the developments using HEC-HMS [hydrologic modelling system] is consistent with Auckland Council Technical Publication 108<sup>13</sup> with the goal to have peak stormwater discharge of equal or less than the pre-development discharge. This is the common approach when dealing with an undersized receiving network.

- 4.10. In response to the expert's report the engineering confirmed the completed work "did not use the existing stormwater pipe which is the focus of the expert review. So the analysis of the design, pre-development flows, and climate change are redundant.... all stormwater goes through brand new stormwater lines designed to the [Building Code] and [Auckland Council Stormwater Code of Practice]<sup>14</sup>; the development has no reliance whatsoever on the existing lines".<sup>15</sup>

## 5. Expert's report

- 5.1. The Ministry engaged a firm of Chartered Professional Civil, Geotechnical and Stormwater Engineers ("the expert") to provide advice on the building work undertaken at. The expert was asked to assess compliance of the work undertaken at 30 and 30A Wolsley. This involved looking at the building consent and the submissions provided by parties. It did not include a site visit.
- 5.2. The expert considered an appropriate methodology had been used to size the attenuation, but that two of the assumptions could lead to increased overland flow to the downstream property which may cause nuisance. First, the way in which the design allows for climate change in the calculation of pre-development flows. Second, in assuming that all existing impervious surfaces (pre-development) discharged to the existing stormwater pipe.

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<sup>13</sup> Auckland Regional Council Technical Publication No. 108, Guidelines for stormwater runoff modelling in the Auckland Region (April 1999)

<sup>14</sup> The Stormwater Code of Practice referred to is Chapter 4 of the Auckland Code of Practice for Land Development and Subdivision.

<sup>15</sup> I note this submission relates to the change in design which occurred, and that design is not considered in this determination and was not the subject of the expert's report.

- 5.3. The design has used guidelines for stormwater runoff modelling in the Auckland Region TP108 as the hydrological approach to determine peak runoff from the development. TP108 is used by Auckland Council for the generation of runoff hydrographs to approximate a catchments response to a design rainfall event.
- 5.4. Above ground and below ground rainwater tanks are proposed for the attenuation of peak discharge from the new development to mitigate the discharge back to the predevelopment level.
- 5.5. The expert states the engineer has referenced GD01<sup>16</sup> as their means of compliance, but the approach taken in the design does not comply with GD01. Although GD01 says detention tanks can be used for mitigating effects in the 10% AEP and 1% AEP event, it also notes “this document does not provide guidance for design, installation or maintenance of below-ground tanks.”
- 5.6. The expert did not consider GD01 appropriate for sizing attenuation in this particular design situation, and noted that neither E1/VM1 or E1/AS1 specifically cover stormwater attenuation design. The method the design applied is that of determining volume difference using an unsteady routing model<sup>17</sup> with the peak flow matched to that of pre-development. “Whilst this approach is common, it is not compliant with GD01” which the design has referenced and relied upon.
- 5.7. The expert considered the calculation methodology used is acceptable for determining the tank attenuation required, subject to some additional criteria. The neighbour’s competing calculations align with E1/VM1 in terms of hydrology and rainfall, and although E1/VM1 does not cover rainwater tank attenuation design specifically, the expert considered E1/VM1 a valid method for determining the attenuation volume.
- 5.8. The expert observed that provision in the design for climate change effects in the allowable discharge creates an immediate increase in run-off post construction relative to current conditions during a 10% AEP event (eg by having a larger orifice and associated larger allowable discharge). GD01, Auckland Council’s Stormwater Code of Practice, E1/AS1 and E1/VM1 do not provide guidance on this matter, but E1.3.1 is clear that flow into neighbouring properties should not be increased where it could cause damage or nuisance.
- 5.9. The expert is of the view the design did not adequately consider the effect of directing additional flows to the existing stormwater pipe. They state:

E1.3.1 states that the discharge should not be concentrated by the building works where it could cause damage or nuisance. The proposed stormwater calculations assume all runoff at present discharges to the existing network which is under-

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<sup>16</sup> Auckland City Council *Stormwater Management Devices in the Auckland Region Guidance Document 01* (2017). GD01 is Auckland Council’s guideline document for stormwater management / treatment systems.

<sup>17</sup> A model which simulates the movement of water.

sized. Discharging all the site's run-off to a point that it did not previously has the effect of concentrating the discharge and potentially increasing overland flow into other properties.

5.10. The expert considered the calculation methodology could have been acceptable, but it should have more carefully considered:

- the calculation of flow rates
- the intensity of discharge to the existing pipe and the potential worsening of overland flow to 32 Wolsley
- the consideration of the timing of flows from the attenuation tank, the design must account for the influence of tailwater events on the rate of discharge and storage volume provided - the tank needs to be larger to account for this
- the analysis tool used (HEC-HMS) does not use the full St Venant equations<sup>18</sup> and is not applicable in that situation for attenuation design.

5.11. The expert concluded:

5.11.1. "based on the information ... presented, it does appear that the discharge will be increased and that the likelihood of nuisance to the adjacent property is increased as a result."

5.11.2. The assumptions made in the calculations "potentially represents an offsite effect which is unmitigated by the development and hence is not compliant with E1.3.1 unless it could be demonstrated that no nuisance or damage to other property would occur as a result. Subjectively, the increase in flow rate is unlikely to cause damage, but it is likely to increase nuisance to other property."

## **Applicant's response to the expert's report**

5.12. The neighbour submitted that the expert's report 'avoids any quantification', and also stated:

...the pre-developed discharge via a 100mm diameter pipe was claimed [by the engineer] to be of an order of 17 l/s, while such pipe's capacity is of an order of only 7 l/s in optimal conditions, and much less in this actual application: energy loses due to changing direction, submerged outlet, overloading of the pipe by the other property. In effect it was blatantly clear that it was impossible to squeeze 17 l/s to that pipe and consequently assuming such pre-development discharge rendered the design based on that assumption flawed and invalid.

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<sup>18</sup> Mathematical framework to analyse the behaviour of fluids.

- 5.12.1. They stated their opinion the report did not go far enough in recognising the issues with the detailing of the attenuation tanks:

Their geometry is such that the effective detention amounts to no more than mere half of even the miniscule 1m<sup>3</sup> detention claimed by the design. The design provides for a large diameter overflow not to a secondary overland flow path, but to the very same pipe it was meant to protect from overloading.

## 6. Discussion

- 6.1. The matters for determination are:

- 6.1.1. whether the building work, as proposed at the time of the application for determination, at 30 and 30A Wolsley associated with the construction of the four new dwellings and associated site works complies with Building Code Clause E1.3.1 with respect to the protection of other property
- 6.1.2. the authority's decision to issue the building consents in regard to consideration of Building Code Clause E1.3.1 with respect to the protection of other property
- 6.1.3. whether, at the time the application for determination was made, there were grounds to issue a notice to fix in regard to Building Code Clause E1.3.1 with respect to the protection of other property.

### Clause E1.3.1

- 6.2. The relevant performance requirement is clause E1.3.1:

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 sitework, shall be disposed of in a way that avoids the likelihood of damage or nuisance to other property

- 6.3. "Surface water" is defined in the Building Code as:

all naturally occurring water, other than sub-surface water, which results from rainfall on the site or water flowing onto the site, including that flowing from a drain, stream, river, lake or sea.<sup>19</sup>

- 6.4. The objective of clause E1 includes to "safeguard... other property from damage, caused by surface water". Its functional requirement is "Buildings and sitework shall be constructed in a way that protects people and other property from the adverse effects of surface water."

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<sup>19</sup> Clause A2 – Interpretation.

6.5. “Other property” is defined in s7 of the Act as:

**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; ...

6.6. In considering the meaning of “likelihood” as it relates to clause E1.3.1, I have adopted the reasoning in *Auckland City Council v Selwyn Mews Ltd*<sup>20</sup> (“*Selwyn Mews*”) where the Judge stated:

[47]...In cl B1.3.3 “a low probability of becoming unstable or collapsing” means that the risk of such events is no more than an appreciable risk (as distinct from a slight risk) or is at most a low risk (as distinct from a very low risk)

6.7. As discussed in previous determinations,<sup>21</sup> protection of “other property” is not limited to the protection of buildings and the land itself must also be protected from the likelihood of damage. Regarding “likelihood of damage” I refer to the reasoning in *Selwyn Mews*, where the Judge stated:

[47]...In cl B1.3.6 “the likelihood of damage to other property” refers to a real and substantial risk of such damage

6.8. The term “nuisance” is not defined in the Act or Building Code. A previous determination<sup>22</sup> held that the term “nuisance” in clause E1.3.1 should not be given a narrow legal meaning and “there must be some significant nuisance effect before there can be a breach of Clause E1.3.1”. This was expanded on in Determination 2015/052,<sup>23</sup> which said:

[6.1.5] The term “nuisance” is not defined in the Act or the Building Code, and it appears only in Clauses E1.3.1 and G4.3.4.<sup>24</sup> The term “nuisance” has a particular common law meaning which is ‘the unreasonable interference with an individual person’s use or enjoyment of land or of some right connected with that land’. The question of whether a nuisance is unreasonable is a question of fact and must be considered in relation to factors such as the nature of the harm and the locality in which it occurs, and the frequency, duration and intensity of the interference.

[6.1.6] ... I am of the view that any nuisance has to be an *unreasonable interference*; calling a nuisance a significant nuisance is simply reflecting the fact that it is not a trivial or minor interference with a person’s use and enjoyment, but must be an unreasonable or significant interference with that use or enjoyment.

<sup>20</sup> District Court Auckland CRN2004067301-19, 18 June 2003, [2003] DCR 671.

<sup>21</sup> For example, Determination 2015/003 *Compliance of a retaining wall between two properties* (10 February 2015).

<sup>22</sup> Determination 2010/059 *Disposal of surface water collected behind a retaining wall* (12 July 2010), at [6.2.4].

<sup>23</sup> Determination 2015/052 *Regarding the compliance of proposed building work ... in respect of adjacent other property* (12 August 2015).

<sup>24</sup> Clause G4.3.4 – Contaminated air shall be disposed of in a way which avoids creating a nuisance or hazard to people and other property. Clause G4.3.4 is outside the matter for determination in this case.

6.9. Regarding the disposal of surface water, I hold the same view as discussed in previous determinations, that not all surface water needs to be so disposed of; only surface water resulting from an event with ‘a 10% probability of occurring annually’ or put another way, a storm or rainfall event of such severity that it only occurs once every 10 years.<sup>25</sup>

6.10. Clause E1.3.3 is also relevant in this matter:

E1.3.3 Drainage systems for the disposal of surface water shall be constructed to:  
(a) convey surface water to an appropriate outfall...<sup>[26]</sup>

6.11. In this matter, the relevance being that an appropriate outfall is one that does not result in non-compliance with E1.3.1.

### **Compliance with Clause E1.3.1 (in relation to other property)**

6.12. I am satisfied that the building work proposed did not utilise either the Acceptable Solution E1/AS1 or E1/VM1 as a means of compliance, and I confirm it does not comply by way of either of these methods. Therefore, I have assessed the building works against Clause E1.3.1 itself.

6.13. The expert identifies issues in the approach taken in the design to determine pre- and post-development surface water flow volumes, and the lack of capacity in the surface water attenuation and disposal.

6.14. I agree with the expert and the neighbour that the approach of just ensuring post-development peak runoff is no more than pre-development peak runoff (even if accurate) does not in this circumstance establish that the building work complies with Clause E1.3.1. It is the impact of the building work that is critical to this design complying, not just a comparison with what might have previously occurred on site. This requires looking at the building work and how it concentrates and collects the water and ensures it travels to an appropriate outfall.

6.15. The surface water flows being directed toward 32 Wolsley have been concentrated and collected by the work undertaken to construct the residential dwellings and retaining walls, and the associated siteworks at 30 and 30A Wolsley. A greater volume of surface water is being captured by impervious surface and discharged to a drainage system, albeit with some attenuation.

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<sup>25</sup> For example, Determination 2017/042 *Regarding compliance of building work with Clause E1 of the Building Code* (20 June 2017).

<sup>26</sup> An ‘appropriate outfall’ was considered in Determination 2024/050 *Regarding compliance with the Building Code and the issue of a code compliance certificate for building work associated with a new dwelling* (September 2024).



- 6.16. Based on the applicant's information and the expert's assessment, I consider the attenuation itself is undersize for the volume of water being discharged from the buildings and associated site works in a 10% AEP flood event.
- 6.17. The proposed design intended the surface water to drain from the attenuation tanks to the pipe outlet at the boundary of 32 Wolsley. I am of the view that a pipe size of 150mm will not be sufficient to take the flow in a 10 %AEP event. This drainage system will then backup, which will lead to greater uncontrolled surface water discharges that will flow down the slope into 32 Wolsley, leading to a further increase in surface water flowing across 32 Wolsley. It will also impede the roof drainage on 32 Wolsley.
- 6.18. In addition, the surface water flows that followed the natural drainage paths on the site prior to this building work have been impeded by building work. These flows generally travelled from the northwest of 30 Wolsley, south through 30A Wolsley, on to 32A Wolsley and then to the Wairau creek. Parts of the new dwellings, surrounding impervious area and retaining walls are constructed in the identified overland flow path (see Figure 1). The levels of the site have also changed, to increase the height of the dwellings at 30A Wolsley above the pre-existing ground levels.
- 6.19. Changing the course of the surface water will have an impact on water entering 32 Wolsley. I do not agree with the assumption that the changes can be dismissed as a 'sheet flow of little depth and across a wide extent'. The concentration by the dwellings and associated impervious area and their locations results in the surface water flow entering 32 Wolsley in different locations from pre-development, at an increased velocity due to the concentration of flows on the east of 30 and 30A Wolsley, and through the centre of 30A. In addition, the retaining walls on the eastern boundary of 30 and 30A Wolsley direct water flows toward the southeast boundary and between the two dwellings on 30A Wolsley. These add up to a situation where the natural contours and flow paths leading downslope to and across 32 Wolsley no longer carry the surface water to Wairau Creek the way they did previously.
- 6.20. I agree with the expert that the proposed building work leads to an increase in flow rate onto 32 Wolsley due to the combination of factors above. The expert considers the increase in flow is unlikely to cause damage, but it is likely to increase nuisance to the property at 32 Wolsley.
- 6.21. I agree with the expert that the impact of this increased flow and volume of surface water in a 10% AEP event will be an increase in the volume and flow into the property at 32 Wolsley, and during the 10% AEP event will render the backyard area, areas around the perimeter of both buildings and the access routes temporarily unusable. The presence of flowing water of a velocity is likely to obstruct movement around the site, and water ponding across site before it can drain to the Wairau Creek.

- 6.22. It is difficult from the evidence presented to me to calculate exact flow speeds and volumes. However, when comparing the information presented in the building consent, the neighbour's own flow calculations and the expert's comments, I consider the volume (potentially several hundred millimetres) and flow (increased from pre-development) will be sufficient to cover a significant area of the property outside the previously normal flow paths in a 10% AEP event. The water will also remain upon 32 Wolsley longer before finding its way to the creek. The volume, location and speed of this flow will disrupt the use of 32 Wolsley by its' occupants. However, I do not consider it will enter the buildings on 32 Wolsley or cause damage to that site.
- 6.23. I consider in a 10% AEP event, the surface water flows onto 32 Wolsley resulting from the collection and concentration by the building work on 30 and 30A Wolsley will result in an unreasonable or significant interference with the use or enjoyment of the neighbour's property and therefore constitute a nuisance. I do not consider there is sufficient evidence that damage will be caused.
- 6.24. In conclusion, the building work as proposed concentrates and collects surface water in a way that is likely to cause a nuisance to 32 Wolsley in a 10% AEP event, and therefore does not comply with Clause E1.3.1 in respect of the requirement to dispose of that water in a way that avoids the likelihood of nuisance to other property.

## The building consents

- 6.25. Section 49 of the Act requires a building consent authority to grant a building consent if it is satisfied that the provisions of the Building Code would be met if the building work was constructed in accordance with the plans and specifications.
- 6.26. I have identified that the building work as proposed did not demonstrate compliance with Clause E1.3.1 in relation to the protection of other property, meaning the test in section 49 was not met and there were grounds for the authority to refuse to issue the building consent.
- 6.27. A determination under section 177(1)(b) is in respect of an authority's decision. Section 188(1) provides that a determination must confirm, reverse, or modify that decision, or determine the matter to which it relates. However, this is an exercise in discretion.<sup>27</sup> In a previous determination I have set out relevant factors in exercising that discretion,<sup>28</sup> and I consider those relevant to this determination.
- 6.28. In this instance, the surface water management system was redesigned after the application for determination was lodged, and the outfall for the surface water changed to direct surface water away from 32 Wolsley. There is also significant

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<sup>27</sup> *Estate Properties Ltd v Hastings District Council* [2021] NZDC 17000 at [21].

<sup>28</sup> For example Determination 2023/033 *Regarding the compliance of, and decisions made by an authority in relation to, building work encroaching on to a neighbouring property* (7 December 2023) at [6.62, 6.63]

other building work in the building consents, and the authority's approval to undertake that work has been relied upon by the owner. I believe reversing the consents in the circumstances is not now warranted.

### **Were there grounds to issue notice to fix?**

- 6.29. Notices to fix are governed by sections 163 to 168. Section 164(1)(a) provides for an authority to issue a notice to fix if it considers, on reasonable grounds, that a specified person is contravening or failing to comply with the Act or its regulations.<sup>29</sup>
- 6.30. The owner alleges the authority should have identified a contravention of section 17. Section 17 requires that all building work must comply with the Building Code.
- 6.31. At the time the application for determination was made the relevant building work had largely been carried out. As I have identified above that the building work did not comply with Clause E1.3.1 as it relates to the protection of other property it follows there were grounds to issue a notice to fix.
- 6.32. However, I note the building work has since been redesigned and the surface water management system changed to direct surface water away from 32 Wolsley Avenue.

## **7. Decision**

- 7.1. In accordance with section 188 of the Building Act 2004, I determine that:
- 7.1.1. the proposed building work at 30 and 30A Wolsley Avenue did not comply with Clause E1.3.1 in relation to protection of other property, and
  - 7.1.2. there were grounds to refuse to issue the building consent, but because the building work related to the surface water drainage system has been altered, I elect not to reverse the building consent
  - 7.1.3. at the time of the application for this determination there were grounds for the authority to issue a notice to fix for a contravention of section 17.

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<sup>29</sup> Section 163 defines a 'specified person' to whom a notice can be issued, and this includes the owner of the building and the person carrying out the building work if the notice relates to the building work being carried out.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 29 November 2024.

**Peta Hird**

**Lead Determinations Specialist**