

Form 13

Submission on application concerning resource consent or esplanade strip that is subject to public notification or limited notification by consent authority

Section 95A Resource Management Act 1991

To: Taupō District Council

Submission on: Application for Resource Consent for Subdivision and Land Use – Okaia drive, Kinloch, Taupō

Reference: RM230338-339 and RM200118B

Name of Submitter: Fire and Emergency New Zealand

This is a submission on an application from Seven Oaks Kinloch Limited (the applicant) for a subdivision and land use resource consent to undertake a 100-lot subdivision and to provide for future residential land use.

Fire and Emergency New Zealand (Fire and Emergency) is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991 (RMA).

The specific parts of the application that Fire and Emergency's submission relates to are:

- The provision of firefighting water supply, and
- Access for fire appliances, and
- Urban development

Fire and Emergency's submission is:

1.1 Context

The primary objective of Fire and Emergency is to reduce the incidence of unwanted fire and the associated risk to life and property. Fire and Emergency seek to:

- protect and preserve life,
- prevent or limit injury,
- prevent or limit damage to property and land, and
- prevent or limit damage to the environment¹.

Fire and Emergency's main functions² are—

- (a) to promote fire safety, including providing guidance on the safe use of fire as a land management tool; and
- (b) to provide fire prevention, response, and suppression services; and
- (c) to stabilise or render safe incidents that involve hazardous substances; and

¹ Fire and Emergency New Zealand Act 2017 section 10(a)(b)

² Fire and Emergency New Zealand Act 2017 section 11(2)

- (d) to provide for the safety of persons and property endangered by incidents involving hazardous substances; and
- (e) to rescue persons who are trapped as a result of transport accidents or other incidents; and
- (f) to provide urban search and rescue services.

Fire and Emergency also has secondary functions to assist in matters to the extent that Fire and Emergency has the capability and capacity to do so and the capability to perform their main functions efficiently and effectively. These secondary functions³ are:

- (a) responding to medical emergencies; and
- (b) responding to maritime incidents; and
- (c) performing rescues, including high angle line rescues, rescues from collapsed buildings, rescues from confined spaces, rescues from unrespirable and explosive atmospheres, swift water rescues, and animal rescues; and
- (d) providing assistance at transport accidents (for example, crash scene cordoning and traffic control); and
- (e) responding to severe weather-related events, natural hazard events, and disasters; and
- (f) responding to incidents in which a substance other than a hazardous substance presents a risk to people, property, or the environment; and
- (g) promoting safe handling, labelling, signage, storage, and transportation of hazardous substances; and
- (h) responding to any other situation, if Fire and Emergency has the capability to assist; and
- (i) any other function conferred on Fire and Emergency as an additional function by the Minister in accordance with section 112 of the Crown Entities Act 2004.

With the wider mandate and changing nature of Fire and Emergency response, the volume of incidents that Fire and Emergency responds to has grown, as has the range of incident types.⁴

Fire and Emergency faces broad challenges, such as the increasing frequency and severity of extreme weather events, increasing intensification of urban areas, and competing access to resources such as water and transport infrastructure. These challenges make the environment Fire and Emergency operates in more complex and puts greater demands on Fire and Emergency as an organisation.

In achieving the sustainable management of natural and physical resources under the Resource Management Act 1991 (RMA), decision makers must have regard to the health and safety of people and communities. Furthermore, there is a duty to avoid, remedy or mitigate actual and potential adverse effects on the environment.

Taupō District Council has a role in ensuring that Fire and Emergency, as an emergency service provider, can continue to operate effectively and efficiently in a changing urban environment. This includes ensuring emergency service vehicles and Fire and Emergency personnel can adequately access both built and natural environments across the district in the event of an emergency, and ensuring new development is adequately serviced by firefighting water supply.

This resource consent application seeks to undertake subdivision and development which incorporates elements of increased residential density which are non-complying within the Kinloch Low Density Residential Zone of the Taupō Operative District Plan. This submission therefore seeks to enable Fire and

³ Fire and Emergency New Zealand Act 2017 section 12(3)

⁴ There is an increasing need to respond to a wide range of non-fire emergencies, where Fire and Emergency often coordinate with and assist other emergency services. These include responding to motor vehicle accidents, medical call-outs, technical rescues, hazardous substance incidents such as gas or chemical leaks, and accidents and other incidents at sea. In 2016/17, Fire and Emergency attended more medical emergencies than structure and vegetation fires combined. (Source: NZ Fire Service Annual Report 2016/17)

Emergency to carry out its requirements under the Fire and Emergency New Zealand Act 2017 more effectively in the protection of people, property, and the environment and addresses matters relating to activities required to be undertaken to enable an effective emergency response within the proposed development area.

1.2 Firefighting Water Supply

The primary objective of Fire and Emergency is to reduce the incidence of unwanted fire and the associated risk to life and property. To achieve this objective Fire and Emergency requires adequate water supply be available for firefighting activities.

It is critical for Fire and Emergency that water supply infrastructure is in place prior to any development commencing and that this water supply has adequate capacity and pressures available to service the future growth. Fire appliances carry a limited amount of water; therefore, it is necessary that adequate water capacity and pressure be available to Fire and Emergency to control or extinguish a fire.

Adequate capacity and pressure for each development can be determined through the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008 (SNZ PAS 4509:2008)⁵. SNZ PAS 4509:2008 is a non-mandatory New Zealand Standard that sets out the minimum requirements for firefighting water and access in order for Fire and Emergency to operate effectively and efficiently in an emergency. Fire and Emergency note that Council's 'Code of Practice - Development of Land' requires the water supply network to comply with SNZ PAS 4509:2008, however there is not explicit provision within the Taupō Operative District Plan.

SNZ PAS 4509:2008 provides techniques to define a sufficient firefighting water supply that may vary according to the circumstances and is based on an assessment of the minimum water supply needed to fight a fire and to limit fire spread. The firefighting water supply required to address the fire hazard may be established by use of tables within the Code, or by calculation. The Code of Practice is written to provide flexibility as to how the firefighting water supplies can be provided.

Based on the application documentation, Fire and Emergency understand that the development area will be connected to Taupō District Council's public water infrastructure, however water supply infrastructure will need to be upgraded in order to achieve adequate water supply. Furthermore, the firefighting water supply modelling, based on FW2 (fire water classification), completed by WSP shows that fire flows are not able to be achieved without impacting other areas of the network. The 'Kinloch Seven Oaks Stage 2 Water Supply Modelling Assessment' dated 30 January 2024 shows that adequate firefighting water supply pressure within Te Tuhi and Hunt Club development areas (located further north of the applicant's development site) cannot be achieved if the additional residential lots created by this application come online. However, it is also noted that Te Tuhi and Hunt Club are rural-residential areas and are not required to meet FW2. Fire and Emergency wish to ensure that new developments do not adversely impact the existing wider firefighting water supply network.

It is also noted that the applicant has identified an area for future commercial land use. The firefighting water supply modelling is based on FW2 and does not take into account other levels of service, for example non-residential and non-sprinklered structures require FW3 to FW7 depending on the size of their floorplate and hazard category. Fire and Emergency therefore seek clarification from the applicant as to what fire demand will be provided for the commercial area, and assurance from Council that adequate firefighting water supply infrastructure will be put in place prior to commercial development.

⁵ The New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008 can be found here: <https://fireandemergency.nz/assets/Documents/Files/N5a-SNZPAS-4509-2008-NZFS-Firefighting-water-supplies-Code-of-practice.pdf>

1.3 Emergency Access

Fire and Emergency requires adequate access to new developments, associated structures and the natural environment, such as the adjacent Okaia Stream Scenic Reserve and Otaketake Stream Scenic Reserve, to ensure that they can respond in emergencies. This includes access in the event of fire, natural hazard, hazardous substances, medical or a rescue or assist.

Adequate provision for emergency access will enable Fire and Emergency to:

- Get into the building and to move freely around their vehicles.
- Gain access to rear dwellings on long sites where hose run lengths become an issue.
- Ensure the safety of firefighters and enable firefighters to deal quickly to smaller undeveloped fires before they develop and endanger members of the public and the firefighters who may need to assist them in either rescues and/or firefighting.

The adequacy of a firefighting water supply includes not only an assessment of the water supply that must be available, but also the locations, connections, and access to the water source to enable the water supply to be used. As such, certain provisions must be followed to ensure the accessibility and usability of alternative firefighting water sources for firefighting purposes.

For fire appliances to access an emergency, adequate carriageway width, height clearance and road gradient is necessary to support the operational requirements of fire appliances. The general requirements relating to emergency vehicle access are as follows:

- Carriageway widths should not be less than 4m to accommodate a fire appliance. This width is required for firefighters to efficiently work around the fire appliance and safely access and operate the hoses and pumps.
- A clear vehicle crossing of no less than 3.5m wide should be provided as site entrances, internal entrances and between buildings.
- A height clearance at vehicle crossings and along carriageways should not be less than 4m. This includes gateways/doorways and overhanging structures (e.g. ducts, pipes, sprinklers, walkways, signs, structural beams, trees, hanging cables, etc.).
- The maximum negotiable gradient is 1:5, but in general the roading gradient should not exceed 16%.
- Operate pumping appliances from a hard standing capable of withstanding the fully laden weight of a fire appliance from which fire operations for a structure are conducted⁶.

The full requirements for emergency vehicle access are set out in detail within SNZ PAS 4509:2008 and within the Firefighting Operations Emergency Vehicle Access Guide (F5-02 GD).

Fire and Emergency consider it is vital for the health, safety and wellbeing of the Kinloch community that the needs of emergency services are taken into account as new development is being planned. Fire and Emergency have reviewed the proposed transport and access provisions and have specific comments on these matters. These are outlined following:

Proposed roads

Okaia Drive extension will be constructed in a north-west direction beyond the existing roundabout. A new road called Kahikatea Drive will extend north-east from the same roundabout, and an additional road, 'Road 1', will be constructed to connect with Kahikatea Drive.

⁶ A vehicle hard-standing is a designated area that can withstand the laden weight and associated loads of the Fire and Emergency vehicle and its crew and facilitate firefighting operations. Refer to Section 4.5 of the Designers' guide to firefighting operations Emergency vehicle access F5-02 GD for more detail.

The proposed new roads will have formed carriageway widths of 7m and 8.5m. The proposed road access is sufficient for emergency response as the proposed widths are wider than the 4m minimum specification contained within the 'Designers' guide to firefighting operations Emergency vehicle access F5-02 GD'.

Right of Way Access to Rear Lots

The proposed right of way easements which provide access to rear residential lots are proposed to be 4m wide when servicing two lots, 4.5m wide when servicing three lots, and 6m wide when servicing six lots. The consent application does not provide specific access formation detail, except to say they will be compliant with the district plan.

Rule 6.5.9 of the Taupō District Plan requires a minimum legal width of 3.5m when the access is servicing two lots, 4.5m when servicing three lots, and 6m wide when servicing 4 to 6 lots. The specified minimum formed width is 2.75m, 2.75m and 4m respectively. A formed carriageway width of 2.75m is not sufficient to enable emergency response access.

Rear lanes should be designed to be wide enough to allow fire appliances to get through them easily and to allow Fire and Emergency personnel to carry out emergency operations. This means that when the fire appliance is parked, Fire and Emergency personnel can easily open and exit the doors and access equipment from its compartments.

Fire and Emergency appreciate that the district plan rules do not meet Fire and Emergency minimum requirements, and the applicant is only required to meet the requirements of the district plan. Fire and Emergency therefore request the applicant to form the rear access to a minimum of 4m wide carriageway to provide for emergency access as a gesture of good faith in the creation of a safe and prosperous community development.

Residential setbacks

The Kinloch Low Density Zone allows 5% building coverage. The resource consent application seeks to increase this for specified lots, proposing a 25% coverage for Lots 1-80, 97-98, and a 40% building coverage for Lots 81-96, 99 and 100.

Front boundary setbacks are proposed to be 3m to 5m from the road. Side setbacks are proposed to be 1.5m from the boundaries, with 7.5m setbacks from the scenic reserve which borders part of the development area. The proposed side setbacks are, respectively, 8.5m and 2.5m less than permitted within the Kinloch Low Density Zone.

Fire and Emergency acknowledge that while the setback changes are non-complying, the distances are not inconsistent with urban intensification standards in higher density areas, and the Kinloch Residential Zone requires a minimum of 7.5m from scenic reserve.

Reduced minimum width increases the risk of fire spreading and can inhibit Fire and Emergency personnel from getting to the fire source. The difficulty of access may also increase the time for fire to burn, thereby increasing the heat radiation in a confined area. The adjacent scenic reserves may include some plant species which have high flammability.

Clause C3 of the New Zealand Building Code is relevant here whereby buildings must be designed and constructed so that there is a low probability of fire spread to other property vertically or horizontally across a relevant boundary. Achieving this functional requirement is however limited by the mechanisms by which this is achieved (i.e. Acceptable Solutions) and buildings of which such requirements apply. If Taupo District Council are supportive of this built form and subsequent densities, it is therefore vital that the New Zealand Building Code is enforced and complied with to reduce the risk of fire spread in the intensified urban areas.

Fire and Emergency encourage Taupo District Council to consider integrating these considerations to prompt developments to consider fire risk mitigations early on in design. This should at a minimum also be included

as an advice note with the relevant side and rear boundary setback rules within the resource consent decision to draw attention to these requirements.

Design

Infrastructure design details have not been provided with the application, and therefore it is difficult to determine the proposed hydrant locations, particularly in relation to the rear access lots. It is important that hydrants are located in appropriate proximity to built residences which enable effective fire emergency response. A 75m hose run is intended to get the hose to the main entry of the furthest residence from the road, where a fire appliance will likely be operating from. The full requirements detailing hose run length and hydrant location is set out within SNZ PAS 4509:2008 and F5-02 GD. Fire and Emergency recommend that the fire infrastructure design is carried out in accordance with these documents and is approved by Council prior to construction.

Fire and Emergency seek the following decision from the consent authority:

The Seven Oaks Kinloch Limited staged residential development at Okaia Drive, Kinloch, has potential implications for Fire and Emergency response in the event of a fire or other emergency. These risks are associated with:

- inadequate firefighting infrastructure design detail,
- inadequate firefighting water supply across the wider supply network,
- increased fire risk associated with urban intensification, and
- emergency access.

If the consent authority is minded to grant the land use and subdivision application, it is requested that the following be included as consent conditions with the same or similar wording as below:

Firefighting water supply and access

- The development area is supplied with sufficient firefighting water supply in accordance with the New Zealand Fire Service Firefighting Water Supply Code of Practice (SNZ PAS 4509:2008), and that supply does not adversely impact the existing wider firefighting water supply network.
- Firefighting water infrastructure shall be designed in accordance with the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008, consultation and agreement will be sought from Fire and Emergency New Zealand, and evidence of this agreement provided to Taupō District Council for its consideration and agreement when determining whether this consent decision has been satisfied.
- The development area shall ensure adequate provision is made for fire truck access and egress in accordance with the Designers' guide to firefighting operations Emergency vehicle access F5-02 GD and the New Zealand Fire Service Firefighting Water Supply Code of Practice (SNZ PAS 4509:2008).

And that the following (with same or similar wording) is included as an advice note:

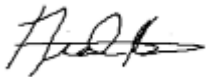
- The land developer is to consider building setback requirements which are further controlled by the Building Code, and that the applicable controls within the Building Code are applied to ensure compliance can be achieved at the building consent stage. Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.

Further to the above, Fire and Emergency request that the applicant engages early with Fire and Emergency during further design stages, and the building consent process. Engaging early in the process will ensure

that the firefighting water supply network is suitably designed (including locations of supply) for use by Fire and Emergency during an emergency, should one occur.

Fire and Emergency wish to be heard in support of its submission. If others make a similar submission, Fire and Emergency will consider presenting a joint case with them at the hearing.

Fire and Emergency does not request, pursuant to section 100A of the Act, that you delegate your functions, powers, and duties to hear and decide the application to one or more hearings commissioners who are not members of the local authority.



Signature of person authorised to sign on behalf of
Fire and Emergency

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