

# **SOUTH WAIRARAPA DISTRICT COUNCIL**

**18 NOVEMBER 2015**

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## **AGENDA ITEM C3**

### **WATERING OF COUNCIL PARKS DURING PERIODS OF WATER RESTRICTION**

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#### **Purpose of Report**

To provide the Working Party with discussion material to consider irrigation of Martinborough Square as well as other Council owned spaces in Greytown and Featherston during the summer water restriction period.

#### **Recommendations**

Officers recommend that the Working Party:

1. *Receives the report.*

## **1. Executive Summary**

This paper considers the current arrangements for irrigation of Council owned spaces, and the approach taken by other councils to their parks and sports fields during periods of water restriction. The argument is proposed that continued irrigation of some key Council assets is more about maintaining Council's existing investment in those assets than merely providing for pleasant green spaces for residents and visitors. The development of an irrigation policy under Council's Water Management Strategy is proposed, along with the investigation of alternative water supply sources and mechanisms. The continuation of the current irrigation arrangements during the water restriction period is recommended for summer 2015/16.

## **2. Background**

The Council meeting of March 2015 requested a paper for this Working Party "to consider irrigation of Martinborough Square as well as other Council owned spaces in Greytown and Featherston during the summer water restriction period". The question was raised during the meeting whether Council should be irrigating parks when residents were unable to water their lawns – should Council be setting an example by not irrigating, or should we be attempting to maintain at least a few green spaces for the public?

## **3. Discussion**

### **3.1 Current arrangements**

#### **3.1.1. Martinborough Square**

Council's only set of automatic irrigators is in Martinborough Square. The system has four zones. In spring the irrigators are run three days per week for one hour in each zone; irrigation starts at 2am and finishes at 6am. Over summer, the irrigators run each day for one hour in each zone – daily watering is expected to start before the end of November. Daily watering generally continues throughout the summer, although last year was stopped in March when the question of the water restrictions was raised. In the autumn, daily watering recommences until the grass is well re-established, and then reduces to every second day until winter, when the system is turned off. While the irrigation does keep the grass alive over summer, the bulk of the water is actually taken up by the trees in the Square.

#### **3.1.2. Soldiers' Memorial Park**

A second irrigation system exists in Soldiers' Memorial Park, for the cricket wicket only, which is managed by the Greytown Cricket Club. There is no irrigation on the park itself, and this makes it difficult to re-establish good grass growth for the cricket outfield after the considerable damage to the turf caused by football over the winter.

#### **3.1.3. Garden beds and annuals**

During summer, City Care staff hand-water the annuals in Featherston, Greytown and Martinborough. The majority of watering is in Martinborough, where most of the annual beds are sitting directly on the road surface in a small amount of soil. Featherston has an irrigation system for the annual beds at the library and information centre; however the system is broken and in previous summers the annuals have been hand-watered.

#### **3.1.4. Trees**

Additional watering is done for some trees. Farley's oak in Greytown is hand-watered as part of the on-going programme of recovery for the tree. All new tree plantings require additional summer watering for their first two seasons, which means that we will be watering any trees planted in winter 2014 and winter 2015. Most new tree plantings are done with the provision of a nova-coil pipe to allow efficient delivery of water to the roots. City Care staff advise that if the summer turns out to be as dry as predicted, some additional tree watering may be required, for example the cherry trees at the Featherston Peace Garden.

### **3.2 Other councils**

A quick check on other Councils' websites indicates that few of them publicly advise of any specific provisions for restricting irrigation of their own parks, sports fields and garden beds. Those that do tend to be councils which have multi-level water restriction plans – at the lower levels, the water restrictions are on residents, but at higher levels, these councils also apply restrictions on their own use. For councils with major outdoor sports grounds, irrigation systems are part of maintaining their investment in their

natural turf at optimum levels for sport, and irrigation usually continues during restrictions.

### **3.2.1. Horowhenua District Council**

HDC has four levels of water restriction, each of which has a public component and a council component.

**Table 1 – Horowhenua District Council water restrictions**

<b>Restriction Level</b>	<b>Water Use Restrictions</b>
Level 1	<ul style="list-style-type: none"> <li>• Private garden sprinklers may only be used 5am to 9am and 7pm to 9pm on alternate days</li> <li>• Sprinklers for watering public parks and gardens may only be used on week days</li> </ul>
Level 2	<ul style="list-style-type: none"> <li>• Private garden sprinklers and soak hoses may not be used at any time</li> <li>• Hand-held garden watering may be used at any time but only on alternate days</li> <li>• Watering of public parks and gardens by bore water from tankers only</li> <li>• Water for window washing, cleaning paved areas and car washing limited to buckets</li> </ul>
Level 3	<ul style="list-style-type: none"> <li>• Private garden sprinklers and soak hoses may not be used at any time</li> <li>• Hand-held private garden watering only between the hours of 7pm to 9pm on Tuesdays and Thursdays</li> <li>• Watering of public parks and gardens by bore water from tankers only</li> <li>• Water for window washing, cleaning paved areas and car washing limited to buckets</li> </ul>
Level 4	<ul style="list-style-type: none"> <li>• Garden sprinklers, soak hoses and hand-held watering may not be used at any time</li> <li>• Filling or topping up of pools and spas is not permitted</li> <li>• Water use by retail, restaurant and accommodation premises subject to written approval from the Council</li> <li>• Water use by construction industry subject to written approval from the Council</li> <li>• Watering of public parks and gardens by bore water from tankers only</li> <li>• Sprinklers must not be used for commercial market gardens without written authority of the Council</li> <li>• Water must not be used for window cleaning, cleaning paved areas or car washing</li> </ul>

### **3.2.2. Hamilton City Council**

Hamilton City and the Waikato district also have a four-level water use restriction system; this references public and commercial use only. However, in previous years, the council has taken steps to reduce its own water usage from level 2 onwards. Examples of measures taken include:

- halting fleet and building washing, pipe flushing, footpath washing and turning fountains off;
- reduced watering of flower beds and parks; and
- changes to the timings of water use at parks and stadiums.

### **3.2.3. Porirua City Council**

Porirua City Council takes no additional measures but does note in the water conservation measures that the following steps are taken:

- parks and playing fields are only watered in the early hours of the morning;
- appropriate native trees species, and plants that are reasonably drought resistant, are planted within parks and reserves; and
- parks staff ensure grounds and gardens are well covered and mulched to avoid water loss and evaporation.

### **3.2.4. Auckland Council and Christchurch Council**

All of the Auckland and Christchurch class 1 and 2 sports fields are irrigated over summer. Bores are used when full public water restrictions are in place.

### **3.2.5. Wellington, Lower Hutt and Upper Hutt**

Wellington's sports fields are irrigated throughout summer from the town supply, although during peak water restrictions, tankers have been used to bring in water from alternative sources. Lower Hutt and Upper Hutt similarly irrigate sports fields through summer from the town supply, although Upper Hutt has a bore for use on the cricket fields.

## **3.3 Discussion**

This discussion paper was requested in the context of a Council meeting discussion in March 2015 about whether it was appropriate for the Council to continue irrigating Martinborough Square when water restrictions were in place across south Wairarapa. The views expressed can be summarised as:

- that irrigation should continue so that the visual appeal and amenity of the parks and gardens can be maintained;
- that irrigation should not continue so that council can be seen to be setting an example of water conservation to ratepayers.

This is perhaps an oversimplification. There is more than an aesthetic/amenity argument in favour of continuing irrigation in some locations. These are locations where the Council already has a significant investment that needs to be protected and maintained – in the case of Martinborough Square, the investment is in the notable trees. The District Plan requires us to ensure that any adverse effects on the health of notable trees are avoided, remedied or mitigated; this seems to confer a responsibility to ensure that the trees receive sufficient water to remain healthy. Unlike grass, which can be replaced within a season, the historic trees in their current form cannot be easily replaced. With Soldiers' Memorial Park in Greytown, the investment is in the turf and the costs of

the annual re-seeding and grass management which enable it to be used for both summer and winter codes.

Even within a water conservation policy, an argument can be made for irrigating key assets. It is a reasonable assumption that the quantity of water required for the irrigation of key assets is significantly less than that required for the total quantity of residential watering. However, some attempt must be made to quantify the water requirement, for example through metering of the supply to Martinborough Square's irrigation system. In addition to this, water sources which do not involve the town supply should be investigated for being made available for park irrigation.

If a high priority is given to Council being seen to promote water conservation, then this needs to be done within the Council's overall Water Conservation Strategy, and publicly communicated as such. Decision-making about irrigation during water restrictions needs a considered approach, rather than being an ad hoc reaction to a specific situation.

If Council proposes to irrigate key assets throughout water restriction periods, a clear policy will be required, and would ideally sit under the Water Conservation Strategy 2015. This already includes the proposed action: "Council being a community leader on establishing sustainable water use practices in its own buildings and on its parks and reserves". The policy would need to define the key assets requiring irrigation and set criteria for assets to be added to the irrigation list. Alternative sources of water supply would need to be planned for, along with an assessment of the most appropriate delivery systems for the irrigation of each asset. An associated communications strategy would be essential to ensure that ratepayers were advised why irrigation continued for certain assets during periods of water restriction.

### ***3.3.1. Alternative water supplies for irrigation of key assets***

#### ***3.3.1.1 Rainwater harvesting***

A rainwater harvesting system for the roof of the proposed Waihinga Centre has already been proposed, with water to be collected from the roof and stored in a tank or tanks buried beneath the children's playground. A solar pump could be used to pump the water to the Martinborough Square irrigation system. Regardless of the form any development around the town hall may take, a rainwater harvesting system could still be implemented if the owners of the other buildings around the Square would agree to attach their buildings' gutters to a collection system.

Rainwater harvesting systems could potentially be developed for other Council parks and gardens from adjacent buildings – for example the Featherston library and information centre buildings could be used to collect rainwater to irrigate the annual beds.

#### ***3.3.1.2 Use of bores***

A bore may be more suitable for larger areas requiring irrigation. In the case of Soldiers' Memorial Park, a bore is in fact available on the park. The existing bore will soon become an emergency-only contributor to the town

water supply, leaving water available for an irrigation system for the park. A bore to supply Martinborough Square could also be considered.

#### **4. Conclusion**

The question of whether or not to irrigate Council parks and gardens during periods of water restrictions is more than a simple choice between promoting aesthetic/amenity value over being seen to promote water conservation. A larger consideration is that Council may have a significant existing investment in some key trees, gardens and sports fields, and that irrigation is potentially critical in maintaining the investment in those assets and avoiding additional costs in repairing or replacing them.

Council's Water Conservation Strategy 2015 proposes that Council be a community leader on establishing sustainable water use practices in its own buildings and on its parks and reserves. The development of an irrigation policy within this would provide a framework for considered decision-making about what key assets should be irrigated during water restriction periods. This would include the investigation of suitable water supply sources and mechanisms as alternatives to using the town supply.

#### **5. Proposed actions**

- Infrastructure Services to develop a "key asset irrigation policy" that allows for the irrigation of key assets during periods of water restriction
- Infrastructure Services to investigate possible alternative water supplies for irrigation of Council assets
- Current arrangements for watering, including the operation of the Martinborough Square irrigation system, to continue through summer 2015/16 even if water restrictions are put in place; and that a public communications strategy is developed for this
- Water meter to be installed onto the supply for the Martinborough Square irrigation system so that the amount of water used over summer 2015/16 can be determined

Contact Officer: Helen McNaught, Amenities Manager

Reviewed By: Mark Allingham, Group Manager Infrastructure Services