11. PARK IRRIGATION SYSTEMS

Officer responsible	Author
Parks Manager	Brent Smith: Contract Management Team Leader
Corporate Plan Output: City Wide Parks Maintenance. Page 9.4 text 15	

The purpose of this report is to respond to queries from the Parks and Recreation Committee on the costs and types of watering practices carried out by the Parks Unit throughout the city.

TURF IRRIGATION

Irrigation of sportsfields and other heavily used park areas on free draining soils is needed in order to provide suitable turf quality for recreational use.

Currently throughout the city we have three different turf watering systems.

- 1. 38 automatic in-ground systems controlled by the Irrinet Computer at the Parks Unit.
- 2. 41 stand alone automatic in-ground systems, controlled by a programmable unit on site.
- 3. 6 manually operated systems such as travelling irrigators, rain guns, bayonet fittings and pipes.

Type 1 is by far the most economic system to use, as water savings of over 25% have been achieved, not to mention the savings in labour costs.

As the capital programme permits, types 2 and 3 are being upgraded and added to the Irrinet programme (especially the labour-intensive manual systems).

Over the next four years, a further eight sports parks will have their irrigation systems upgraded, while a further eleven will have new systems installed. In addition to this 2-3 smaller amenity turf areas have irrigation installed each year. This programme is in accordance with the Parks Asset Management Plan (page 63).

An average of \$245,000 per year is being spent on turf irrigation systems over the next four years.

TANK WATERING

Tanker watering of trees and shrubs is carried out in their 2-3 year establishment period only.

Frequencies of watering are either on a seven day cycle (for street trees and plants on lighter soils) or a fourteen day cycle (for other plantings). This watering regime is carried out over the spring, summer and early autumn period for the first two years on plantings in parks, or for the first three years for street trees.

In the 1998/99 financial year tanker watering was carried out for over 45,300 shrubs and 8,600 trees at a total cost of \$220,000.

Where there is a significantly large number of plantings on one location (e.g. a new reserve development) and especially on the lighter soils, we calculate the cost efficiency of installing a watering system for the plants compared with the cost of two years of tanker watering.

If there are savings to be made, a watering system is installed, as has been the case in Copperfield, Arden, Monterey and Carlsen Reserves, recently.

A significant part of installing these watering systems is the cost of the water connection, valves, backflow preventers, controllers and power supplies. While the majority of this equipment can be recovered and reused (once the planting is established) it is often still cheaper to continue with the tanker watering.

After the initial establishment period has passed and with the correct plant selection for the site, further watering for the plantings should not be necessary. Maintaining the 75mm mulch layer under the plantings also contributes to retaining the soil moisture in the ground, thus making the plantings more sustainable.

SUMMARY

Through the capital works programme we will continue the upgrade and installation of the irrigation systems to achieve the long term aims of the Parks Asset Management Plan and create more operational savings.

Chairman's

Recommendation: That the information be received.