4.3.2 ROOF HARVESTED WATER STORAGE

On-site storage of harvested rainwater from roofs must be sized and designed to meet the benchmarks detailed in Section 4.3.1. This includes the associated plumbing and pump work for storing harvested stormwater from the roof(s).

Appendix 4 provides details on how to size water tanks for irrigation purposes.

Below ground cisterns that employ innovative harvesting technologies, such as this roadside treatment and storage system, are encouraged.

An irrigation design must be prepared and documented. The irrigation drawings and specification are to be signed for approval by a person holding a Diploma of Irrigation, or with equivalent experience. It is strongly recommended that this person be accredited as a Certified Irrigation Designer by the Irrigation Association of Australia.

The irrigation design must include devices and techniques that contribute to more efficient water use. These include but are not limited to:

- automatic controllers incorporating multiple start times, rain delay programming, and ET (evapotranspiration) programming
- automatic shut-off devices such as rain and moisture sensors
- low volume irrigation delivery through systems such as drippers, bubblers and micro-jets
- pressure regulating devices
- high efficiency nozzles
- deficit watering programs that irrigate to achieve 80% field capacity when available water reaches 40-45% of field capacity
- stationing of sprinkler systems to match the hydro-zones of the site.
Irrigation designs may include sheet flows of rainwater from pavements and directly into turf or garden areas.

For small garden areas hand watering via hoses or buckets may be an acceptable solution.

Irrigation system scheduling must comply with Council’s watering regulations.

4.4 MAINTENANCE

Ensure that the landscape continues to deliver water efficient outcomes throughout its life.

4.4.1 LANDSCAPE MAINTENANCE PLAN

A landscape maintenance plan must be prepared that includes, but is not limited to:

- top dressing and aeration to lawns
- mulching
- weed removal
- incorporation of compost into garden beds
- maintenance of plants
- all maintenance plans are to include a schedule that lists tasks, locations, season of visit, number of visits per year, and the frequency that each task is to be carried out.

A suitably qualified horticulturist or landscape designer should prepare the landscape maintenance plan.

If an irrigation system is required (refer to Section 4.3.3) the maintenance plan must also include:

- leak and blockage checks in irrigation lines and emitters
- reprogramming irrigation controller(s) and restationing of emitters as plants grow, die out and are replaced
- inspection of moisture sensors
- maintenance of tanks and cisterns
- checking of water pumps.

The irrigation designer (referred to in Section 4.3.3) should prepare this section of the landscape maintenance plan.

4.5 WATER CONSERVATION

Following is a water conservation design checklist. It lists the factors that have been described in these Guidelines and indicates a sequence for determining the requirements of specific landscape projects. It is to be used during the detailed design stage and submitted to Council for operational works assessment.