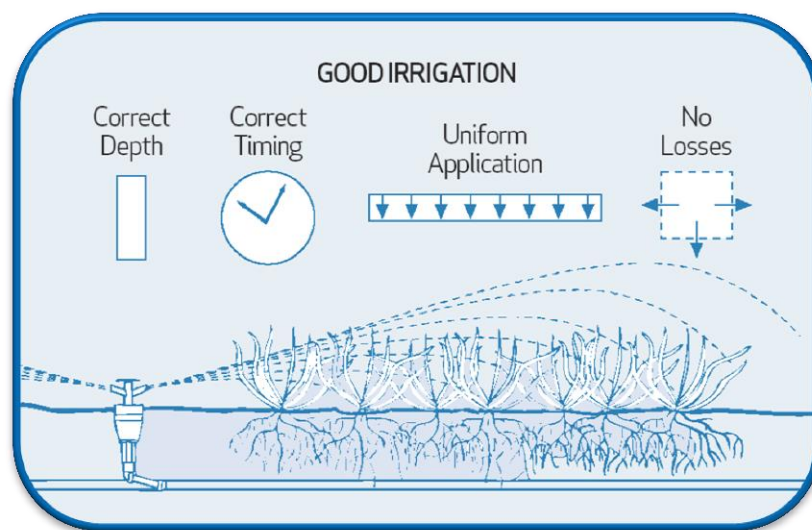


Irrigation Efficiency Checklist

This checklist provides a reference for Irrigated Open Space Managers to critique irrigation efficiency and identify opportunities for improvement. Test your knowledge of your site and irrigation system by going through each question and ticking the boxes to see if you can answer appropriately. At the end of the checklist you will have identified areas of improvement and can investigate these further.



Source: Irrigated Public Open Space Code of Practise

1. Site Plan

- Do you know where your water infrastructure is located?
- Where are the water meters that supply your irrigation system?
- Do you have appropriate backflow protection?
- Do you have shut off valves to isolate sections of your irrigation systems?
- Do you know your site's vegetation and soil profile?

2. Water Source

- Have you verified your water source?
- What is the pressure and flow of your water supply and does this vary?
- Do you pump water from a bore?
- Is your pump operating at maximum efficiency?
- Do you know what the quality of your water is?
- Can you access mains water, recycled water, bore water or other alternative sources?
- Can you shandy different sources of water to reduce your water costs and improve water quality?

3. Irrigation Design

- How old is your irrigation system?
- Was it designed and installed by qualified personnel?
- Does your system have a master valve?
- Do you have original documentation of your system?
- Is the system designed according to the supply pressure and flow?

4. Irrigation Application Efficiency

- Does your system distribute water uniformly across your site?
- Do you know the application rate of your system and does your irrigation scheduling take this into account?
- Do you only irrigate during optimal environmental conditions – when irrigation is required, and when it is not windy and during the night?
- Have you ensured the correct nozzles in sprinklers match the flow and pressure rates required for your system?
- Have the nozzles, irrigation seals and sprinkler heads worn away and require replacing?
- Does the depth you irrigate match the plant root zone and soil?
- Do you monitor evapotranspiration and rainfall or does your irrigation control box effectively schedule irrigation – or do you have soil sensor monitors?

5. Water Management Efficiency

- Have you monitored your system for leaks?
- Does your system shut off automatically if there is a leak or during rain?
- Can you turn your system off manually during rain or if a leak is noticed?
- Do you have an Irrigation Management Plan in place?

6. System Maintenance

- Do you have a maintenance plan for your system?
- How often do you check your solenoids, sprinkler heads, nozzles, flow and pressure?

7. Water Use

- Do you monitor and record water use at a minimum per month?
- Do you have a historical record of your water consumption?
- Do you schedule irrigation according to evapotranspiration and rainfall?
- Do you track your water use against the seasonal climate conditions?
- Do you budget financially for your water use?



8. Soil Condition

- Do you mulch garden bed and tree areas?
- Do you undertake physical soil conditioning techniques such as scarifying, coring, regular mowing and turf aeration?
- Do you have a fertilizer program that matches your soil nutrient deficiencies?
- Do you test your soil periodically for nutrient balances and pH?
- Is your soil water storage optimised through deep root zone management?

9. Trained Operator and Informed Supervisors

- Is your operator appropriately trained on irrigation efficiency?
- Are supervisors aware and informed on what it will cost to maintain the site to the required standard and has this been appropriately budgeted for?
- Do you keep an accurate record of your water bills?

Can't answer all these questions as well as what you'd like?

There are some helpful resources available on SA Water's [Irrigated Public Open Space \(IPOS\) website](#). [Irrigation Australia](#) and the [Turf Grass Association](#) also have a wealth of information that may be helpful to you.

If you would like specific advice from an SA Water Technical Officer please contact Business Technical Support on the details in the banner below.



References:

Connellan, G, 2013, *Water Use Efficiency for Irrigated Turf and Landscape*, CSIRO Publishing, Victoria, p204.

Disclaimer:

SA Water's Business Technical Support provides recommendations and suggestions only. It is advised that further investigations and detailed studies are completed before any projects are implemented. All applicable standards & guidelines (Australian, EU, AQUIS, HACCP, Australian Drinking Water Quality Guidelines etc.) should be adhered to, and care should be taken to ensure water and wastewater minimisation programs do not negatively impact health or processing operations.

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