

# ANNUAL NUTRIENT SURVEY for Local Government Authorities



## City of Stirling Nutrient Management Score Card

The Swan and Canning River systems, and many wetlands, are suffering from regular, and sometimes toxic, algal blooms. These blooms occur due to excessive inputs of nutrients, particularly phosphorus and nitrogen, combined with low water flows and warm temperatures. Local authorities are responsible for nutrient use and management on turf areas and in reserves, in drainage systems and in local planning decisions and thus have the opportunity to lead the community by setting examples in best practice.

Each year Local Government Authorities (LGAs) in Perth are surveyed on their nutrient practices by the Phosphorus Awareness Project of the South East Regional Centre for Urban Landcare (SERCUL). The survey is broken up into different sections including nutrient monitoring, fertiliser applications, nutrient management, nutrient education, water quality monitoring and development control. The results from the questions asked in the survey have been used to provide a Score Card for each LGA that responded and clearly show how the LGA is performing and where and how improvements can be made. LGAs should also refer to the Annual Nutrient Survey for Local Government Authorities Results 2022 report ([www.sercul.org.au/fertilisewise](http://www.sercul.org.au/fertilisewise)) for further recommendations on how to implement nutrient Best Management Practices (BMPs).

Please note that not all of the questions asked in the survey were used to determine the overall best management practice score. Any additional information about nutrient practices provided by an LGA is summarised at the end of this scorecard.



## BEST MANAGEMENT PRACTICE SCORE 2022

Overall BMP: **85% EXCELLING**

The City of Stirling has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications, nutrient management and water quality monitoring.

### RESPONSE KEY:

■ BMP has been achieved ■ BMP has NOT been achieved ■ Not Applicable  Response not assessed

### BEST MANAGEMENT PRACTICE (BMP) KEY:

■ Excelling ■ Above Average ■ Average ■ Below Average ■ Unsatisfactory

## NUTRIENT MONITORING

QUESTION	RESPONSE	SECTION BMP
Are regular soil tests &/or leaf tissue analyses conducted in grassed and turf areas?	YES	EXCELLING
Is analysis conducted by a lab affiliated with ASPAC?	YES	
Is plant available phosphorus in the soil measured using an appropriate test?	YES	
Are rates of phosphorus determined by soil testing and Phosphorus Retention Index (PRI) results?	YES	

The City conducts soil tests, leaf tissue analysis and moisture testing of sports fields, golf courses and foreshore areas and it is recommended that this practice continue. It is recommended that the City conduct soil and moisture testing and leaf tissue analysis of irrigated parks that are fertilised and if it fertilises dry grass areas it conducts soil and leaf tissue analysis of these areas.

## FERTILISER APPLICATIONS

QUESTION	RESPONSE	SECTION BMP
Are there foreshore reserves and parks in the LGA?	YES	UNSATISFACTORY
Is fertiliser added to foreshore reserves and parks?	YES	
Does the fertiliser contain phosphorus?	YES	
Is it a controlled release, low water soluble fertiliser?	NO	

Despite stating that the fertiliser applied to foreshore areas was a controlled release, low water soluble form in the survey, the information provided about the brand of fertiliser applied showed it was slow release, so the answer to this question was changed to no. A buffer zone immediately adjacent to waterbodies should be established in which no fertilising takes place. The width of the buffer zone should be determined by factors such as the site condition and function, however, if possible, it should be at least 50 m. Outside the buffer zone, if fertiliser is required according to soil testing and leaf tissue analysis, it should be phosphorus free and a controlled release, low water soluble fertiliser if in solid form or applied to foliage. If the area is irrigated moisture testing should also be undertaken. Analysis of the amounts of fertiliser applied to active turf, passive turf and foreshore areas indicates that some fertilisers are being applied at a rate above the recommended single application rate of 40 kg/ha of nitrogen, however where it is in a controlled release form and soil testing and leaf tissue analysis is being conducted this may be acceptable. Analysis of the fertiliser application information also indicates that the City is also applying some fertiliser to active turf at rates above the maximum water-soluble single application rate of phosphorus recommended for even a high PRI soil, although it is not specified how much of that phosphorus is water soluble. Fertiliser is also being applied in winter. It is recommended that the City ensure that each single application of nitrogen and single water-soluble application rate of phosphorus be below the recommended amounts and that they not apply fertiliser in winter.

## NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	YES	EXCELLING
Are non-structural measures in place to prevent nutrients from grass clippings entering waterbodies via stormwater drains?	YES	
Are there deciduous trees in parks and streetscapes?	YES	
Are non-structural measures in place to prevent nutrients from deciduous leaves entering waterbodies via stormwater drains?	YES	
Are there non-structural measures in place to prevent nutrients from sediment entering waterbodies via stormwater drains?	YES	
Is a Nutrient and Irrigation Management Plan (NIMP) implemented for streetscapes?	YES	
Is there a policy to use local native plants as the first choice in public (LGA) and private (developers) landscaping?	NO	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies and that the City implement a policy to use local native plants as the first choice when landscaping.

## WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	ABOVE AVERAGE
Are stormwater drains regularly monitored for nutrient levels?	NO	
Are compensating basins regularly monitored for nutrient levels?	YES	

The City regularly monitors its wetlands and compensation basins for nutrient levels, but does not report the results to the local community. It is recommended that the City monitor wetlands, stormwater drains and compensating basins for nutrient levels and report the results to their local community.

## DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
Do you impose conditions on development which include Nutrient and Irrigation Management Plans (NIMPs)?	YES	
Do you have mechanisms in place to regulate sediment management?	YES	

It is recommended that the City continue to implement their current practices including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

## NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Are dog poo bins and bags provided in parks and foreshore reserves?	YES	EXCELLING
Are measures taken to educate the public about not feeding bread to waterbirds in foreshore reserves and parks?	YES	
Are ratepayers provided with advice on best practice in fertiliser management according to soil type?	YES	

It is recommended that the City provide more specific advice on best practice in fertiliser management according to soil type. SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The City can also link its website to the Fertilise Wise page of SERCUL's website ([www.sercul.org.au/fertilisewise](http://www.sercul.org.au/fertilisewise)).