

# ANNUAL NUTRIENT SURVEY for Local Government Authorities

## 2023 City of Perth 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 turfed 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 to foreshore areas, nutrient management, water quality monitoring, development control and nutrient education. 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 2023 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.

### 2023 Overall Best Management Practice Score – 79% ABOVE AVERAGE

The City of Perth has been above average in implementing nutrient Best Management Practices in 2022/23. Further improvements can be made in the areas of fertiliser applications, nutrient management, water quality monitoring, development control and nutrient education.

#### 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
Were regular soil nutrient tests, soil moisture tests &/or leaf tissue analyses conducted in any grass/turf areas?	YES	EXCELLING
Was analysis conducted by a lab affiliated with ASPAC?	YES	
Was plant available phosphorus in the soil measured using an appropriate test?	YES	
Were 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 at irrigated parks and foreshore areas and it is recommended that this practice continues. The City reported having no sports fields or golf courses under its control.

## FORESHORE FERTILISER APPLICATIONS

QUESTION	RESPONSE	SECTION BMP
Are there grassed/turfed foreshore areas within the LGA?	YES	ABOVE AVERAGE
Was fertiliser added to grassed/turfed foreshore reserves?	YES	
Did the fertiliser contain phosphorus?	NO	
Was it a controlled release solid fertiliser or a liquid fertiliser applied to foliage?	YES	
Was there a buffer zone around waterbodies in which no fertiliser was applied?	NO	
Was any nutrient testing completed of foreshore areas?	YES	

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 30 - 50 m around natural waterbodies. Outside the buffer zone, the current regime of using a phosphorus free fertiliser that is either a controlled release, low water soluble solid or a liquid applied to foliage, and applying it according to soil and moisture testing and leaf tissue analysis is acceptable.

#### General Fertiliser Recommendations:

It is recommended that fertiliser only be applied in spring and autumn as summer fertilising encourages the overuse of water and turf may grow excessively, while fertiliser applied during winter can be washed into stormwater drains or leached into groundwater. Many grass species are also dormant or semi-dormant in winter. Employees involved in turf management would benefit from attending SERCULs Fertilise Wise Fertiliser Training in 2024.

## NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Were structural BMPs in place to reduce nutrients entering waterbodies?	YES	ABOVE AVERAGE
Were non-structural measures in place to prevent nutrients from grass clippings entering waterbodies directly or via stormwater drains?	YES	
Are there deciduous trees in parks and streetscapes?	YES	
Were non-structural measures in place to prevent nutrients from deciduous leaves entering waterbodies directly or via stormwater drains?	YES	
Were non-structural measures in place to prevent nutrients from sediment entering waterbodies directly or via stormwater drains?	YES	
Was a Nutrient and Irrigation Management Plan (NIMP) implemented for streetscapes?	NO	
Was 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. A NIMP should be implemented for streetscapes as well as a policy to use local native plants as the first choice in landscaping.

## WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Were wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Were stormwater drains regularly monitored for nutrient levels?	YES	
Were compensating basins regularly monitored for nutrient levels?	N/A	

The City regularly monitored wetlands and stormwater drain for nutrient levels, but did not report the results to their local community and it is recommended they adopt this practice. The City reported that it doesn't have any compensation basins under its control.

## DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Were there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	ABOVE AVERAGE
Did the LGA impose conditions on development which included Nutrient and Irrigation Management Plans (NIMPs)?	NO	
Did the LGA have mechanisms in place to regulate sediment management?	YES	

It is recommended that the City impose conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying. It is recognised that the City is often not the approving authority for large-scale developments in the city (more often being the State Government).

## NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Were dog poo bins and bags provided in parks and foreshore reserves?	YES	ABOVE AVERAGE
Were measures taken to educate the public about not feeding bread to waterbirds in foreshore reserves and parks?	YES	
Were ratepayers provided with advice on best practice in fertiliser management according to soil type?	YES	
Was education provided about nutrient sources to waterways?	NO	

It is recommended that the City provide education to residents, relevant businesses and schools about the impact of all nutrient sources, including fertiliser, pet faeces, grass clippings, leaves, sediment, septic tanks and detergent, on waterways and how they get there (ie. via runoff, stormwater drains and groundwater). SERCUL has relevant information on its website that can be linked to and can be engaged to deliver presentations to schools, business and community groups through its Phosphorus Awareness Project. For more information on this education program and how it can assist the City with nutrient education contact Natasha Bowden on 9458 5664.

## ADDITIONAL INFORMATION PROVIDED

Minimal Level of Sustainable Nutrition program in place for all turf areas as part of the soil and leaf tissue testing undertaken for the City. The MLSN program ensures turf areas do not use specific nutrients unless required past a minimum level. Irrigation Central Control locks irrigation programs in the event of rainfall events.

This not only works to conserve water but ensures turf is not watered past field capacity and reduces nutrient leaching. While the City does not have an endorsed policy on WA natives as a first choice in public and private landscaping we have a number of high-profile gardens that are thematically planned around using WA natives and endemic riverine species. New garden projects preference the use of West Australian plant species. The City's spring displays are now WA native inspired as are the summer displays. The City's Verge Transformation Guidelines preference endemic West Australian species.