

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2023 City of Swan 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) 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.

100%
BMPs

2023 Overall Best Management Practice Score – 100% EXCELLING

The City of Swan should be commended for having all the assessed nutrient Best Management Practices in place. Further improvement could be made in the areas of nutrient monitoring and fertiliser applications.

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 conducted soil tests and leaf tissue analysis of sports fields which it fertilised and irrigated, and soil tests of irrigated parks, which it did not fertilise. It is recommended that the City also conduct moisture testing of all fertilised areas that are irrigated.

FORESHORE FERTILISER APPLICATIONS

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

The City did not apply fertiliser to foreshore areas and it is recommended that this practice continue.

General Fertiliser Recommendations:

Baileys Energy Maxx fertiliser was added to one active turf area at a rate exceeding the maximum recommended application rate for water-soluble phosphorus for even a high PRI soil. However, as it is a slow release fertiliser and soil tests were performed this application rate may be within acceptable limits. It should, however, be remembered that nutrients from slow release fertilisers can be released very quickly when excessive moisture and high temperatures occur in the same period. 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 SERCUL's Fertilise Wise Fertiliser Training in 2024.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Were structural BMPs in place to reduce nutrients entering waterbodies?	YES	EXCELLING
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?	YES	
Was there a policy to use local native plants as the first choice in public (LGA) and private (developers) landscaping?	YES	

It is recommended that City continue to implement its current practices, including the practice of not planting deciduous trees on road verges or near water.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Were there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
Did the LGA impose conditions on development which included Nutrient and Irrigation Management Plans (NIMPs)?	YES	
Did the LGA 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.

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?	YES	

It is recommended that the City continue to implement their current practices, including the reporting of results to the community.

NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Were dog poo bins and bags provided in parks and foreshore reserves?	YES	EXCELLING
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?	YES	

It is recommended that the City continue to implement their current practices in this area. In addition to what is currently being undertaken, SERCUL has relevant information on its website that can be linked to and can be engaged to deliver presentations about nutrients and their impact on waterways 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.