

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2023 City of Subiaco 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.

2023 Overall Best Management Practice Score – 89% EXCELLING

The City of Subiaco has excelled 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 conducted regular soil tests, leaf tissue analysis and moisture testing of sports fields, irrigated parks and foreshore areas and it is recommended that this practice continue.

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?	YES	

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

General Fertiliser Recommendations:

Analysis of the amounts of fertiliser applied to passive turf indicates that Pro Turf Hi N fertiliser was applied at a rate above the maximum recommended single application rate of 40 kg/ha of nitrogen, however as it is in a controlled release form this may be acceptable. It is however being applied at rates above the recommended annual application rate of nitrogen of 50 - 100 kg/ha/yr for premium passive turf. The UMAX Urea being applied to active turf contains quick release nitrogen and is being applied at rates above the maximum recommended single application rate. It is recommended that the City ensure that each single application of nitrogen be below the maximum recommended rate for a single application and that annual application rates not exceed that recommended for the turf type. 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	EXCELLING
Were non-structural measures in place to prevent nutrients from grass clippings entering waterbodies directly or via stormwater drains?	NO	
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 the City put in place measures to prevent nutrients from grass clippings entering waterbodies via stormwater drains. Many of the same measures put in place to control deciduous leaves and sediment entering stormwater drains are also effective in controlling grass clippings (see main report). It is recommended that no further deciduous trees be planted on road verges or near waterbodies.

WATER QUALITY MONITORING

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

Wetlands were monitored for nutrient levels, however, the results were not reported to the community. It is recommended that the City report monitoring results to the community. The City stated that its stormwater is directed to "dry" sumps or soakwells (those that do not intersect the maximum groundwater table) and that it doesn't have compensating 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.

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 provide more education about nutrient sources to waterways, in addition to the current sole measure of following up on reports of stormwater contamination by speaking to the suspected perpetrator. 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.

ADDITIONAL INFORMATION PROVIDED

The City undertakes regular soil analysis and nutrient tests on parks that are irrigated to ensure that correct nutrients are then added.