

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2021 City of Kalamunda 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, 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 2021 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.



BEST MANAGEMENT PRACTICE SCORE 2021

Overall BMP: **50% AVERAGE**

The City of Kalamunda has been average in implementing Best Management Practices in 2020/21. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications, nutrient management, water quality monitoring and development control.

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?	NO	UNSATISFACTORY
Is analysis conducted by a lab affiliated with ASPAC?	N/A	
Is plant available phosphorus in the soil measured using an appropriate test?	N/A	
Are rates of phosphorus determined by soil testing and Phosphorus Retention Index (PRI) results?	N/A	

It is recommended that the City conduct regular soil tests and leaf tissue analysis in all fertilised areas at least biannually to determine accurate nutrient levels. In irrigated areas they should also conduct soil moisture tests. It is recommended employees involved in turf management attend SERCUL's Fertilise Wise Fertiliser Training in 2022.

FERTILISER APPLICATIONS

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

The City reports that it does not have any foreshore reserves or parks. The only areas in the City that are fertilised are active turf areas. These areas are fertilised once every season using a complete fertiliser. The rate of nitrogen applied is greater than the maximum recommended single application rate of 40kg/ha. It is recommended that the City only fertilise in autumn and spring according to the results of soil tests, leaf tissue analysis and moisture testing and that no single application of nitrogen exceed 40kg/ha.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	NO	AVERAGE
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?	NO	
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?	NO	
Is 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 have structural measures in place, such as infiltration, conveyance or detention systems, to reduce nutrients entering the river system. It is recommended that they implement non-structural measures to prevent nutrients from deciduous leaves entering waterbodies via stormwater drains and that no further deciduous trees be planted on road verges or near water bodies. A NIMP should be implemented for streetscapes.

WATER QUALITY MONITORING

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

The City regularly monitors stormwater drains for nutrient levels but does not report the results of monitoring to the local community. It is recommended that the City regularly monitor nutrient levels in wetlands, stormwater drains and compensating basins and reports the results of monitoring to the local community. SERCUL's Water Quality Monitoring Team can assist LGAs with undertaking this work and can be contacted on 9458 5664.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	BELOW AVERAGE
Do you impose conditions on development which include Nutrient and Irrigation Management Plans (NIMPs)?	NO RE-SPONSE	
Do you have mechanisms in place to regulate sediment management?	NO	

The City provided no response to the question regarding NIMPs. If they do not have conditions on development which include a NIMP it is recommended that they impose them, monitor them for compliance and prosecute developers that are not complying. They should also have mechanisms in place to regulate sediment management (refer to main report for measures that can be implemented). The answer that was provided to this question was not a way to regulate sediment management so the response was changed from unsure to no.

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 continue to implement their current practices.