

ANNUAL NUTRIENT SURVEY for Local Government Authorities

City of Kalamunda

Nutrient Management Score Card 2020

The Swan and Canning River systems, and many wetlands, are suffering from regular, sometimes toxic, algal blooms. These blooms occur due to excessive inputs of nutrients, particularly phosphorus and nitrogen, combined with low water flows. Local authorities are responsible for nutrient use on turfed areas, reserves 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 (LGA's) in Perth are surveyed on their nutrient practices by the Phosphorus Awareness Project of the South East Regional Centre for Urban Landcare (SERCUL). The results from the questions asked in the survey have been used to provide these Score Cards for each LGA that responded and clearly show where and how improvements can be made. LGA's should also refer to the *Annual Nutrient Survey for Local Government Authorities Results 2020* report (www.sercul.org.au/fertilisewise) for further recommendations on how to improve nutrient Best Management Practices (BMP's).

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 these sections are shown below, for the last five years, so that the LGA knows exactly how they responded and where improvements can be made. Recommendations on how to improve practices have been made where needed.

Please note that not all of the questions asked in the survey were used to determine the overall best management practice score. We have provided an overall score based on results provided since 2000, those for the last 5 years and those for this year. This will allow LGA's to see how they are doing over the long-term, short-term and at the current time. Any additional information about nutrient practices provided by an LGA is summarised at the end of this scorecard.



Best Management Practice Scores

Overall (2000 - 2020): 61% - Above Average **Last 5 years: 63% - Above Average** **2020: 63% - Above Average**

Overall and for the last five years, the City of Kalamunda has been above average in adopting Best Management Practice (BMP), however their scores decreased this year due to a few changes in practices that are not BMP. Further improvements can be made in the areas of fertiliser applications, nutrient management, nutrient education, water quality monitoring and development control.

Key for following tables:

■ Best management practice has been achieved ■ Best management practice has not been achieved ■ No response ■ Not Applicable

Nutrient Monitoring

Question Number	Question	Year				
		2016	2017	2018	2019	2020
1	Conducted soil tests					
3	ASPAC analysis					
4	Colwell test used					
5	PRI measured					

Overall, the City of Kalamunda has excelled in nutrient monitoring. It is recommended that the City continue its current practices.

Fertiliser Applications

Question Number	Question	Year				
		2016	2017	2018	2019	2020
7(b)	Fertiliser used in foreshore areas					

The City has stated that they do not have foreshore parks and reserves and thus do not fertilise these areas. However, given that they have stated that they monitor wetlands for nutrients at Questions 17(a), this statement might need to be reconsidered as wetlands have foreshore areas.

Analysis of Question 8 from the 2020 survey indicated that the City is only fertilising active turf and is using inorganic slow release and complete inorganic fertiliser with average nitrogen and phosphorus application rates far in excess of the recommended average application rates of 40 kg/ha of nitrogen and 5 kg/ha of phosphorus in one application. They are also applied across all seasons. Fertilisers should not be applied in winter and only in summer if nutrient testing indicates it is required. Many turf types will not take up nutrients from fertiliser if there is an extended period of high temperatures. The City has indicated that they conduct soil, leaf and moisture tests in sports fields and it is recommended that this practice continue and fertilising regimes be based on these results and not exceed the recommended application rates.

City of Kalamunda

Nutrient Management Score Card 2020 *continued*

Nutrient Management

Question Number	Question	Year				
		2016	2017	2018	2019	2020
10(a)	Grass clipping measures					
11	NIMP for streetscapes					
12	Local plants policy					
13(b)	Deciduous tree leaf removal					
14	Dog poo bins					

Overall, the City has scored average in nutrient management, however this result has slipped to below average. It is recommended that the City implement a Nutrient and Irrigation Management Plan (NIMP) for streetscapes and a local plant policy.

Deciduous trees are found in the City's area. It was stated that the City has measures in place to prevent deciduous leaves entering drains, however the stated method of cleaning drains prior to storm season is not preventing leaves entering drains and the above table reflects this determination. A one-off clean prior to storm season would not be sufficient to prevent nutrients from entering waterbodies as deciduous leaves decompose readily and drain cleaning would need to be undertaken on a regular basis during the autumn and winter months. It is recommended that no further deciduous trees be planted; measures, such as street sweeping, be adopted to prevent the leaves from entering drains and drain cleaning be increased during months when leaves are falling.

Nutrient Education

Question Number	Question	Year				
		2016	2017	2018	2019	2020
15(a)	Discourages public waterbird feeding					
16(a)	Provides fertiliser advice to rate payers					

Overall, the City has achieved an above average score in nutrient education, however this year that fell to average due to them not providing fertiliser advice to rate payers. It is recommended that the City improve upon their delivery of nutrient education by distributing 'Fertilise Wise' leaflets (available for free from the Phosphorus Awareness Project), linking their website to the Fertilise Wise page on the SERCUL website - www.sercul.org.au/our-projects/fertilise-wise/ and/or hosting a 'Great Gardens' or 'Beyond Gardens' workshop. Refer to the 2020 Annual Nutrient Report for more information.

Water Quality Monitoring

Question Number	Question	Year				
		2016	2017	2018	2019	2020
17(a)	Monitors wetlands for nutrients					
17(b)	Monitors stormwater drains for nutrients					
17(c)	Monitors comp basins for nutrients					

Overall, the City is scoring below average in the area of water quality monitoring. It is recommended that they reinstate monitoring of compensation basins and report the results of all water quality monitoring to the community.

Development Control

Question Number	Question	Year				
		2016	2017	2018	2019	2020
18(a)	NIMP developers conditions imposed					
19	Town Planning env enforcement policies					

Overall, the City has scored average in the development control area. It is recommended that the City imposes NIMP conditions on developers, monitors these for compliance and prosecutes developers that are not complying with NIMP conditions imposed on them as developments are potentially major sources of nutrients to groundwater and waterways.

