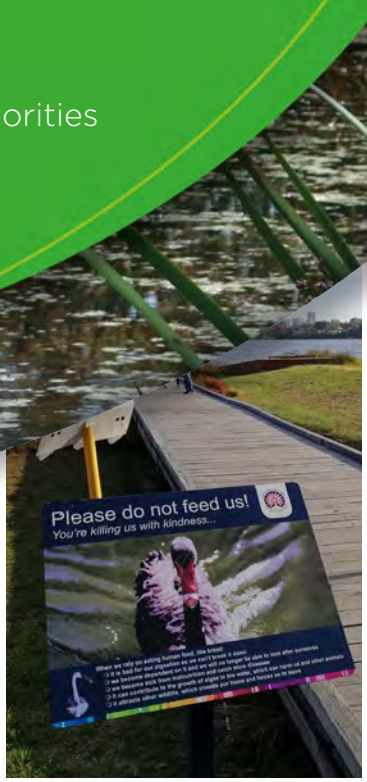
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2021 City of Kwinana 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: **65% ABOVE AVERAGE**

The City of Kwinana has been above average in implementing Best Management Practices in 2020/21. The City does not have any area within the Swan Canning Catchment and therefore does not contribute nutrients to the Swan Canning River System. It does however have important wetlands and ocean within or adjacent to its boundaries and should be mindful of the nutrients entering these waterbodies. Further improvements can be made in the areas of nutrient monitoring, 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?	YES	EXCELLING
Is analysis conducted by a lab affiliated with ASPAC?	YES	
Is plant available phosphorus in the soil measured using an appropriate test?	YES	
Are rates of phosphorus determined by soil testing and Phosphorus Retention Index (PRI) results?	YES	

The soil testing that the City does at sports fields is to a high standard, however, it does not complete leaf tissue analysis and moisture testing of these fertilised areas. No soil or moisture testing or leaf tissue analysis is completed at irrigated parks or in dry grass areas, despite the City stating that they fertilise passive turf areas. It is recommended that the City undertake soil testing and leaf tissue analysis at all areas that are fertilised and moisture testing at those areas that are also irrigated.

FERTILISER APPLICATIONS

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

The City does not apply fertiliser to foreshore areas and it is recommended that this practice continue. It is recommended that the City use soil testing and leaf tissue analysis to determine fertiliser rates of passive turf areas and if irrigation occurs they also conduct moisture testing. If dry grass areas are fertilised then soil tests and leaf tissue analysis should be undertaken.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	NO	ABOVE 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?	YES	
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 wetlands and the ocean. It is recommended that no further deciduous trees be planted on road verges or near waterbodies. A NIMP should be implemented for streetscapes.

WATER QUALITY MONITORING

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

It is highly recommended that the City monitor wetlands, stormwater drains and compensating basins for nutrient levels and report the results to their local community. It is noted that the City has had an action in their Sustainable Water Management Plan since 2013 to 'Carry out a stormwater quality monitoring program to assist with prioritising and designing stormwater refits', but according to the responses received in this and previous years surveys none has been implemented. It is recommended that any monitoring program implemented be ongoing to identify issues as they arise. SERCULs 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	ABOVE AVERAGE
Do you impose conditions on development which include Nutrient and Irrigation Management Plans (NIMPs)?	YES	
Do you have mechanisms in place to regulate sediment management?	UNSURE	

The respondent to the survey was unsure if the City had any mechanisms in place to regulate sediment management. It is important that if they do not have mechanisms in place to regulate sediment management they enact some in the future (refer to main report for measures that can be implemented).

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.

SERCUL
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The Annual Nutrient Survey for Local Government Authorities Results 2021 Report is available at www.sercul.org.au/fertilisewise