

# ANNUAL NUTRIENT SURVEY for Local Government Authorities



## City of Armadale 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 turf 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 2022 report ([www.sercul.org.au/fertilisewise](http://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 2022

Overall BMP: **61% ABOVE AVERAGE**

The City of Armadale has been above average in implementing nutrient BMPs in 2021/22. Further improvements can be made in the areas of 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?	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 City conducted soil and moisture testing and leaf tissue analysis in active turf areas, golf courses, irrigated parks and foreshore areas. If dry grass areas are fertilised, nutrient testing should be conducted.

### FERTILISER APPLICATIONS

QUESTION	RESPONSE	SECTION BMP
Are there foreshore reserves and parks in the LGA?	YES	BELOW AVERAGE
Is fertiliser added to foreshore reserves and parks?	YES	
Does the fertiliser contain phosphorus?	YES	
Is it a controlled release, low water soluble fertiliser?	YES	

Despite stating that foreshore areas are fertilised, no information was provided on the amount of fertiliser that was applied. A buffer zone immediately adjacent to waterbodies should be established in which no fertilising takes place. The width of the buffer zone should be determined by factors such as the site condition and function, however, if possible, it should be at least 50 m. Outside the buffer zone, if fertiliser is required according to soil testing and leaf tissue analysis, it should be phosphorus free and a controlled release, low water soluble fertiliser if in solid form or applied to foliage. If the area is irrigated moisture testing should also be performed. It is recommended that fertilisers not be applied during winter and summer.

## NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	YES	EXCELLING
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	

The City's responses this year recognised that they have structural BMPs in place, including infiltration systems and conveyance systems, and various non-structural measures in place to prevent nutrients from grass clippings, deciduous leaves and sediment entering waterbodies via stormwater drains. It is recommended 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	UNSATISFACTORY
Are stormwater drains regularly monitored for nutrient levels?	NO	
Are compensating basins regularly monitored for nutrient levels?	NO	

The City reported that they did not monitor nutrient levels in wetlands, stormwater drains and compensating basins in 2021/22. It is highly recommended that the City recommence their program to monitor nutrient levels in these areas to enable them to identify and manage potential sources of nutrients as they arise. The results of this monitoring should be reported to their local community. 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?	NO	UNSATISFACTORY
Do you impose conditions on development which include Nutrient and Irrigation Management Plans (NIMPs)?	NO	
Do you have mechanisms in place to regulate sediment management?	NO	

Despite saying last year they had provisions in their Town Planning Scheme or Planning Policies to enforce environmental conditions on development, this year they stated they had none. It is recommended that the City impose environmental conditions on development including requiring NIMPs and monitors these for compliance and prosecutes developers that are not complying. They should also have mechanisms in place to regulate sediment management.

## 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 in this area.