

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2023 City of Gosnells 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 – 95% EXCELLING

The City of Gosnells has excelled in implementing nutrient Best Management Practices in 2022/23. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications and water quality monitoring.

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 soil tests and leaf tissue analysis of sports fields and irrigated parks, which were both fertilised and irrigated. Soil testing was undertaken in dry grass area which were fertilised. It is recommended that the City undertakes regular soil testing and leaf tissue analysis of all turf areas that are fertilised and moisture testing if these areas are irrigated.

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? | NO | |

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

General Fertiliser Recommendations:

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 SERCUL's 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? | YES | |
| 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 continue to implement its current practices, including not planting deciduous trees on road verges or near water bodies.

WATER QUALITY MONITORING

| QUESTION | RESPONSE | SECTION BMP |
|---|----------|---------------|
| Were wetlands regularly monitored for nutrient levels? | YES | ABOVE AVERAGE |
| Were stormwater drains regularly monitored for nutrient levels? | NO | |
| Were compensating basins regularly monitored for nutrient levels? | YES | |

The City monitored nutrient levels in wetlands and compensating basins, but did not report the results to the local community. It is recommended that the City also monitor stormwater drains and report all water quality monitoring results 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 |
|--|----------|-------------|
| Were there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development? | YES | EXCELLING |
| Did the LGA impose conditions on development which included Nutrient and Irrigation Management Plans (NIMPs)? | YES | |
| Did the LGA have mechanisms in place to regulate sediment management? | YES | |

It is recommended that the City continue to implement their current practices, including monitoring developments for compliance and prosecuting those who do not comply.

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 continue to implement their current practices. In addition to what is currently being undertaken, 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.