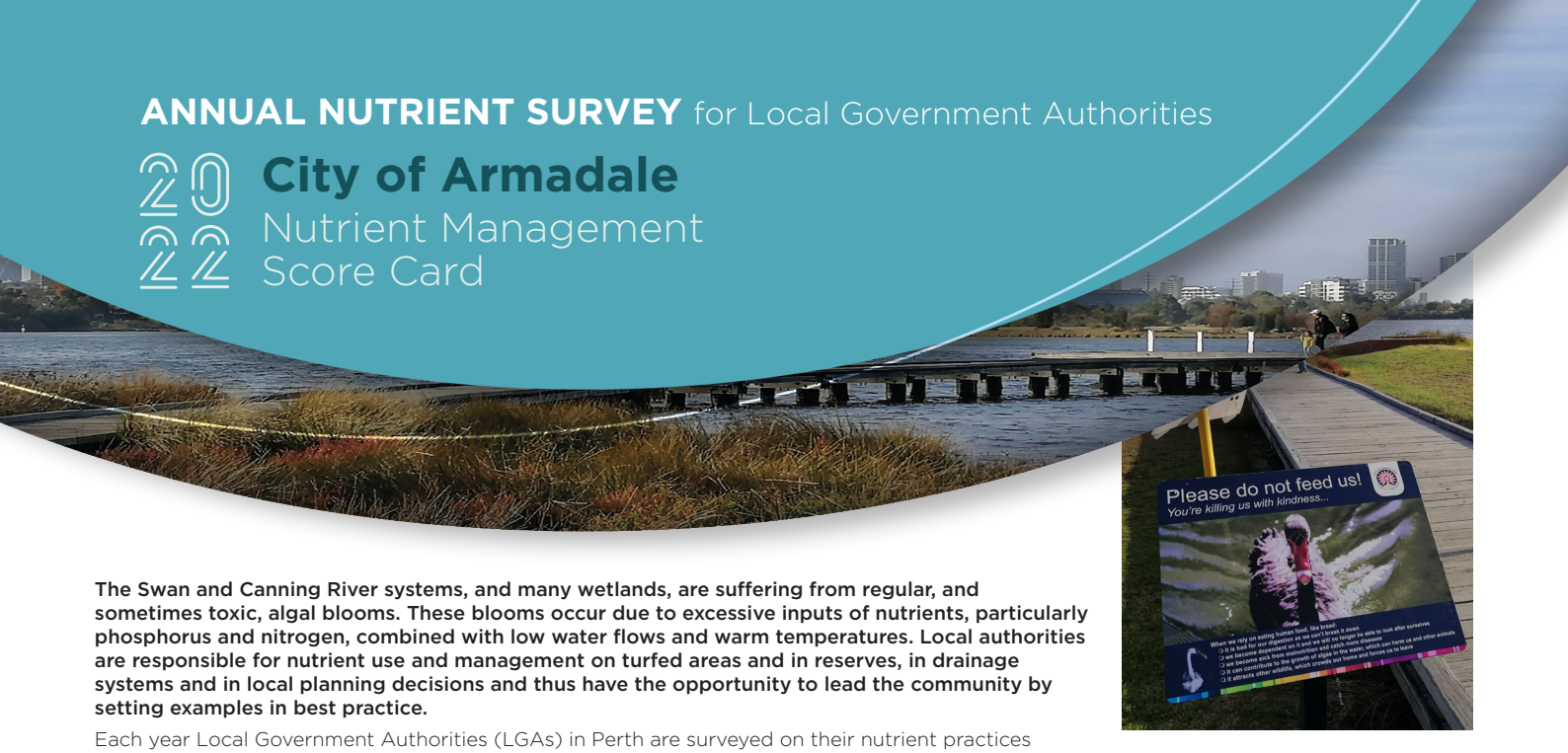
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022

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 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 2022 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 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.

SERCUL
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

For further information contact - Natasha Bowden
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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 Town of Bassendean

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 2022 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 2022

Overall BMP: **76% ABOVE AVERAGE**

The Town of Bassendean has been above average in implementing nutrient BMPs in 2021/22. 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 Town or their Turf Consultant conduct regular soil tests and leaf tissue analysis in all fertilised areas to determine accurate nutrient levels. In irrigated areas that are fertilised they should also conduct soil moisture tests. It is recommended employees involved in turf management attend SERCULs Fertilise Wise Fertiliser Training in 2023.

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 Town does not apply fertiliser to foreshore areas and it is recommended that this practice continue. The fertiliser being added to active and passive turf contains phosphorus which is being applied at rates above the maximum single application rate for water-soluble phosphorus in a low PRI soil (5kg/ha). It is not specified how much of that phosphorus is in a water-soluble form. The application rate of total phosphorus is, however, quite high and no nutrient monitoring of turf and soil has been undertaken to indicate whether this amount is even required. The fertiliser is also being applied numerous times over all seasons. It is recommended that soil and leaf tissue testing be conducted prior to the application of any fertiliser to determine the nutrient levels required. In irrigated areas they should also conduct soil moisture tests. It is recommended that fertilisers not be applied during winter and summer. Employees involved in turf management would benefit from attending SERCULs Fertilise Wise Fertiliser Training in 2023.

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	

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?	YES	ABOVE AVERAGE
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	NO	

The Town regularly monitors wetlands and stormwater drains for nutrient levels but does not report the results to the local community. It is recommended that the City monitor compensating basins for nutrient levels and report all results to the 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?	YES	ABOVE AVERAGE
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?	YES	

It is recommended that the Town imposes conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying.

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 Town continue to implement their current practices in this area.

For further information contact - Natasha Bowden
Education and Promotion Manager, SERCUL.
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P I (08) 9458 5664

The Annual Nutrient Survey for Local Government Authorities Results 2022 Report is available at www.sercul.org.au/fertilisewise

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Bayswater 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 2022 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.

100% BMPs

BEST MANAGEMENT PRACTICE SCORE 2022

Overall BMP: **100% EXCELLING**

The City of Bayswater should be commended for having all of the assessed nutrient Best Management Practices in place.

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 performs leaf tissue analysis and soil and moisture testing of sports fields, golf courses, irrigated parks and foreshore areas. It is recommended that this testing regime continue. If dry grass areas are fertilised then nutrient testing should be performed.

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 continue to implement their current practices in other turfed areas, with the exception that fertiliser not be applied during the winter months.

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?	YES	
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 continue to implement its current practices. It is recommended that no further deciduous trees be planted on road verges or near waterbodies.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	YES	

It is recommended that the City continue to implement their current practices, including the reporting of results to the community.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the City continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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.

ADDITIONAL INFORMATION PROVIDED

Raingardens, living streams and micro wetlands continue to be constructed. School events are held to teach students about the connection of stormwater to the river and the role of nutrients. “Clean Drains River Gains” drainage kerb markers are installed around the City. The Waterwise Bayswater Strategy provides guidance on actions to create a more waterwise city. Community group planting days occurred over weekends. Residents continue to install native verges and street trees.

The following practices continue to be undertaken by Parks and Gardens: retic upgrades, retic training programmes - efficiency etc, top dressing, hydrozoning, testing of additional tennis clubs and turf cricket wickets with results passed to the clubs themselves in addition to wetting agents and growth retarder used in summer. Grass is also mown slightly higher to protect the canopy and reduce the requirement for weed spraying, fertilisers, sweeping of grass tailings etc. The City is also in the process of developing water sensitive urban design guidelines and identifying key sites in which to implement these guidelines as a project.

SERCUL
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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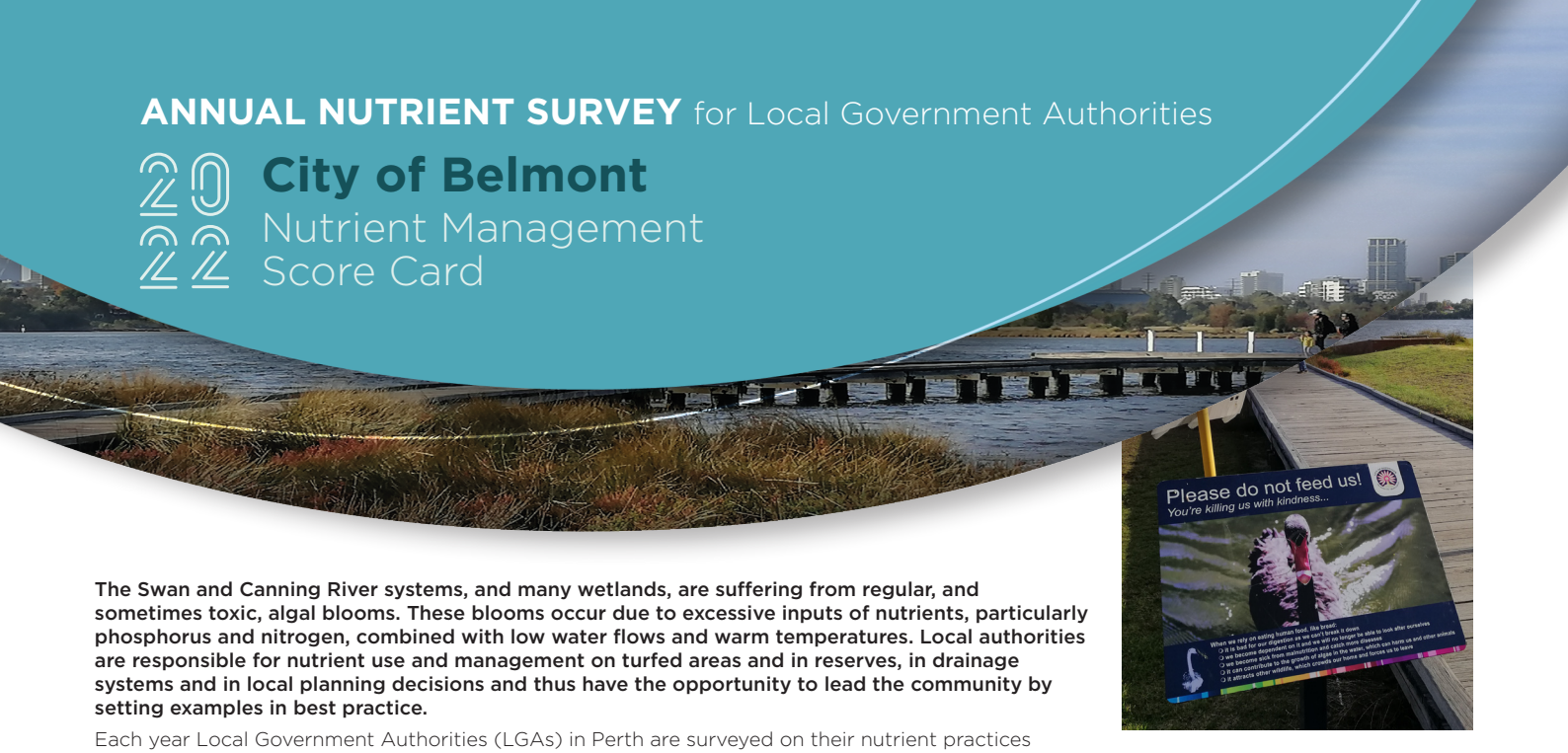
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Belmont 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.

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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: **86% EXCELLING**

The City of Belmont has excelled in implementing nutrient BMPs in 2021/22. Further improvements can be made in the areas of fertiliser applications, nutrient management 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 performs leaf tissue analysis and soil and moisture testing of sports fields, irrigated parks and foreshore areas. If dry grass areas are fertilised then nutrient testing should also be undertaken in these areas.

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	

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. Analysis of the fertiliser application information provided indicates that the City is applying Eco-Growth Pro Series NPK fertiliser to active turf above the recommended single application rate of 40 kg/ha. It is recommended that the City ensure that each single application of nitrogen is below this amount.

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	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies. It is recommended that a NIMP be implemented for streetscapes.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	YES	

The City regularly monitors nutrient levels in wetlands, stormwater drains and compensating basins, however, does not currently report the results to the community. It is recommended that they continue their current monitoring practices but commence reporting of the results to the community.

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)?	NO	
Do you have mechanisms in place to regulate sediment management?	YES	

It is recommended that the City imposes conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying.

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.

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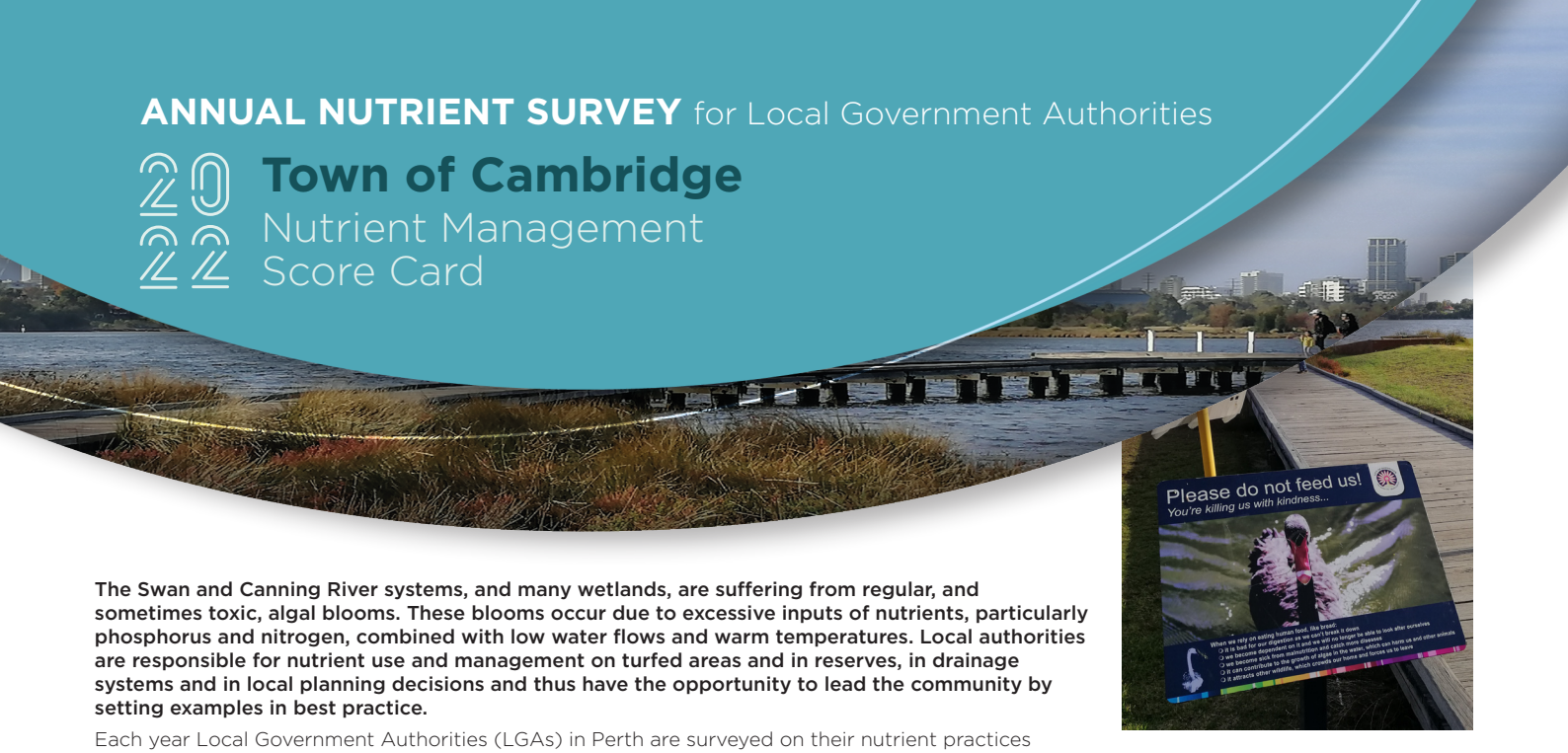
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 Town of Cambridge Nutrient Management Score Card



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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: **95% EXCELLING**

The Town of Cambridge has excelled in implementing nutrient BMPs in 2021/22. Further improvements can be made in the area of fertiliser applications.

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 Town performs leaf tissue analysis and soil and moisture testing of sports fields, golf courses and irrigated parks. It does not conduct any testing or analysis in foreshore areas, which are fertilised, or in dry grass areas although it is unclear if these areas are fertilised. Nutrient monitoring should be undertaken in all fertilised areas and moisture testing in those areas that are also irrigated.

FERTILISER APPLICATIONS

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

The City stated that they used a controlled release fertiliser in foreshore areas however it is slow release so this answer was changed accordingly. 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. Analysis of the fertiliser application information indicates that the Town is applying C-Wise Sports Blend to active turf and although it contains low percentages of nitrogen and phosphorus it is being applied in large amounts, leading to high rates of nutrients being applied. It is recommended that the Town ensure that each single application of nitrogen is below 40 kg/ha and the maximum water-soluble phosphorus single application rate is according to soil testing and PRI results.

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?	YES	
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 Town continue to implement its current practices. It is recommended that no further deciduous trees be planted on road verges or near waterbodies.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	YES	

It is recommended that the Town continue to implement their current practices, including the reporting of results to the community.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the Town continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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 Town continue to implement their current practices.

SERCUL
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

For further information contact - Natasha Bowden
Education and Promotion Manager, SERCUL.
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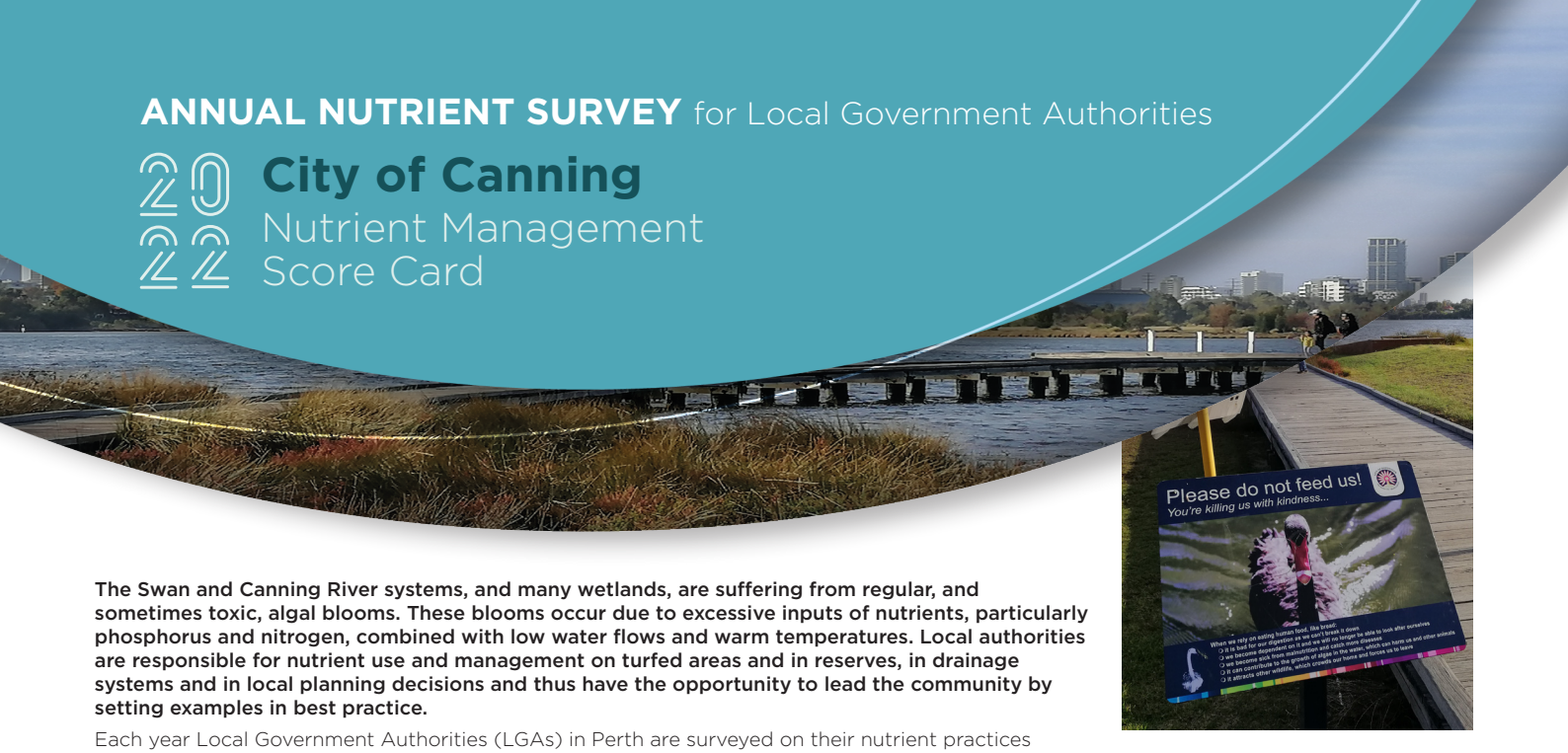
P I (08) 9458 5664

The Annual Nutrient Survey for Local Government Authorities Results 2022 Report is available at www.sercul.org.au/fertilisewise

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Canning 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 2022 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 2022

Overall BMP: **90% EXCELLING**

The City of Canning has excelled in implementing nutrient BMPs in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications to foreshore areas and nutrient management.

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 performs soil and moisture testing of sports fields, golf courses, irrigated parks and foreshore areas, as well as moisture testing of dry grass areas. Nutrient monitoring of soil and leaf tissue should be undertaken in all fertilised areas.

FERTILISER APPLICATIONS

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

The City stated that fertiliser applied to foreshore areas does not contain phosphorus and is a controlled release, low water soluble fertiliser, however, the information provided about the fertiliser applied indicates that an organic top dress, which is slow release, and contains 1.1% phosphorus was applied so the responses were changed accordingly. 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. The organic topdress is being applied in amounts that may mean that the rates of nitrogen and phosphorus exceed those recommended for a single application. The recommended single application rate of nitrogen is 40 kg/ha and the maximum water-soluble single application rate of phosphorus is 5 kg/ha for a low PRI soil and 20 kg/ha for a high PRI soil. It is not specified, however, how much of the nutrients in the organic top dress are in a water-soluble state. It is recommended that before applying organic top dress in those areas beyond the buffer zone, application rates are determined so that nitrogen is applied at a single application rate of 40 kg/ha or below and water-soluble phosphorus is applied according to the PRI and phosphorus soil test results.

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	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies. It is recommended that a NIMP be implemented for streetscapes.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	YES	

It is recommended that the Town continue to monitor wetlands, stormwater drains and compensating basins for nutrient levels. They currently report the monitoring results of wetland and compensation basins to the community and this should continue. They should also start reporting the results of stormwater drain monitoring to the community.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the Town continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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.

ADDITIONAL INFORMATION PROVIDED

Nutrient management on golf courses and sports grounds.

For further information contact - Natasha Bowden
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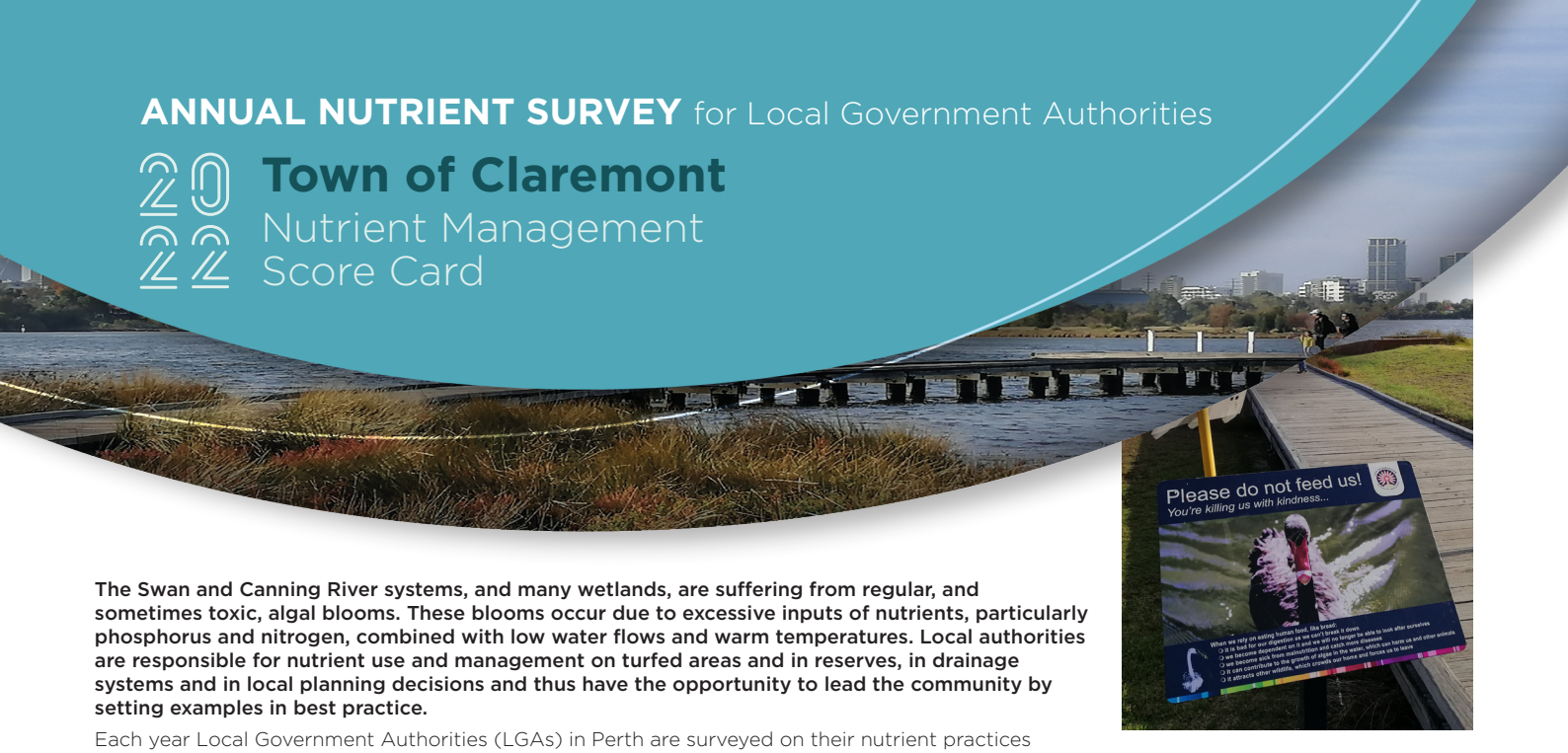
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022

Town of Claremont

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 2022 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 2022

Overall BMP: **75% ABOVE AVERAGE**

The Town of Claremont has been above average in implementing nutrient BMPs in 2021/22. Further improvements can be made in the areas of nutrient monitoring, nutrient management, water quality monitoring and nutrient education.

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 Town completed soil tests and leaf tissue analysis in all grassed and turf areas, except dry grass areas. It is recommended that the Town conduct moisture testing in those fertilised 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 Town does not apply fertiliser to foreshore areas and it is recommended that this practice continue.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	YES	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?	NO	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies. A NIMP should be implemented for streetscapes and a policy to use local native plants as the first choice in landscaping be enacted.

WATER QUALITY MONITORING

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

The Town regularly monitors wetlands for nutrient levels but does not report the results to their local community. It is recommended that they monitor and report on the results from wetlands, stormwater drains and compensating basins. 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	YES
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?	YES	

It is recommended that the Town continue to implement their current practices. Environmental conditions on developments should be monitored for compliance and if developers are found not to be in compliance they should be prosecuted.

NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Are dog poo bins and bags provided in parks and foreshore reserves?	YES	ABOVE AVERAGE
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?	NO	

It is recommended that the Town provide ratepayers with advice on best practice in fertiliser management according to soil type (refer to main report for measures that can be implemented). SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The Town can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

SERCUL
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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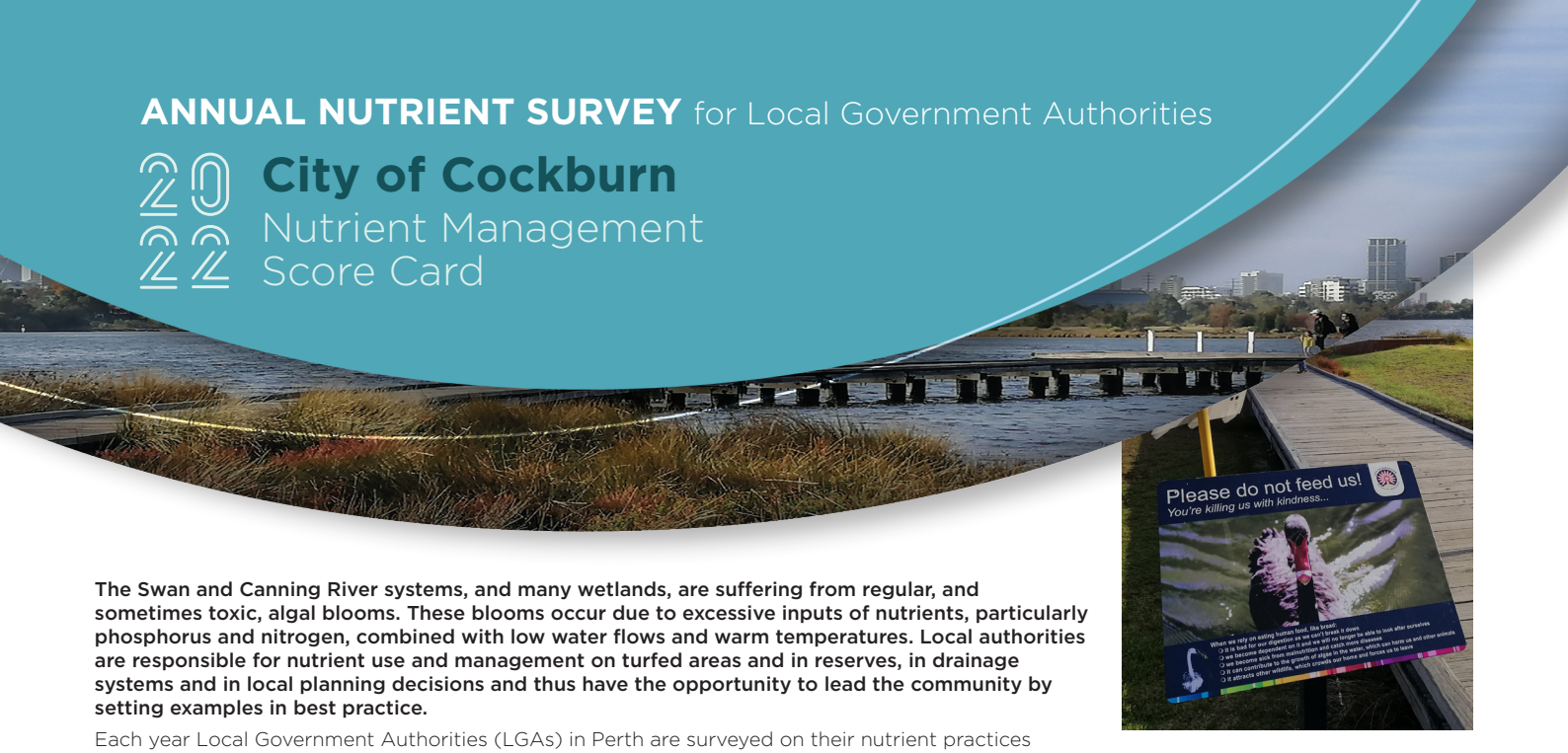
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Cockburn 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 2022 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 2022

Overall BMP: **89% EXCELLING**

The City of Cockburn has excelled in implementing nutrient BMPs in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications and nutrient management.

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 conducts regular soil tests and leaf tissue analysis of its sports fields and irrigated parks. It conducts no soil tests, leaf tissue analysis or moisture testing of foreshore areas or dry grass areas. It is recommended that the City conduct soil and leaf tissue analysis of all fertilised areas and moisture testing in those areas that are also irrigated.

FERTILISER APPLICATIONS

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

Despite stating that the fertiliser applied to foreshore areas was a controlled release, low water soluble form in the survey, the information provided about the brands of fertiliser applied contradict this information, so the answer to this question was changed to no. 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. Analysis of the fertiliser application information indicates that the City is applying Brilliance fertiliser to active turf at rates above the maximum water-soluble single application rate of phosphorus recommended for even a high PRI soil. Brilliance is a quick release fertiliser so all of this phosphorus has the potential to leach to waterways and as moisture testing is not being conducted this is a concern.

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	

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?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	N/A	
Are compensating basins regularly monitored for nutrient levels?	N/A	

The City monitors nutrient levels in wetlands, but does not report the results to the local community. It is recommended that these results be publicly available. The City reported having no compensation basins under its control and stated that their stormwater is directed to dry sumps and soakwells that do not intersect with the maximum groundwater table. This is despite stating in previous surveys that they monitor stormwater drains. Clarification on this matter is required.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the Town continue to implement their current practices. Environmental conditions on developments should be monitored for compliance and if developers are found not to be in compliance they should be prosecuted.

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.

ADDITIONAL INFORMATION PROVIDED

Verge enhancement grants for residents, liquid fertilisers and wetting agent.

For further information contact - Natasha Bowden
Education and Promotion Manager, SERCUL.
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P I (08) 9458 5664

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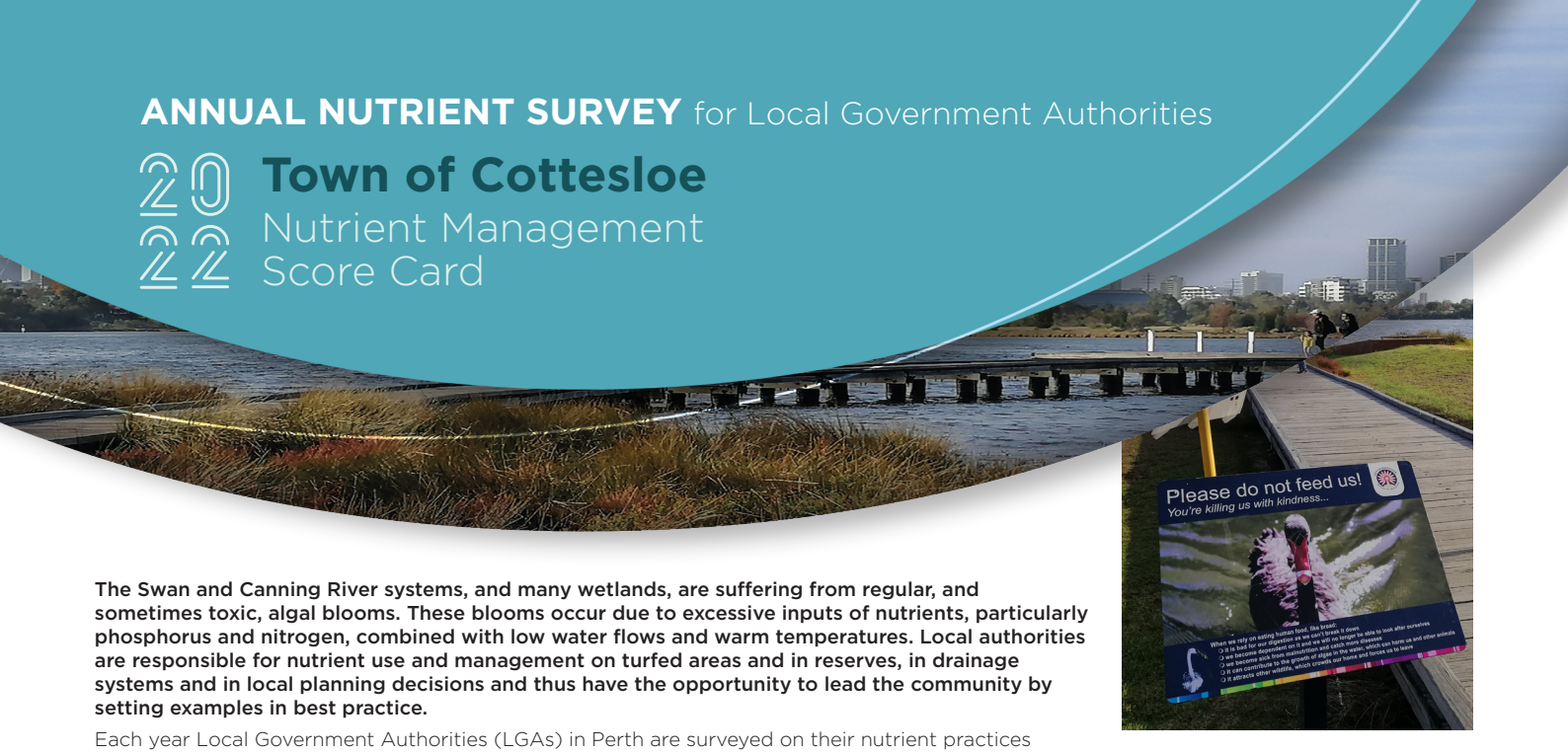
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022

Town of Cottesloe

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 2022 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 2022

Overall BMP: **72% ABOVE AVERAGE**

The Town of Cottesloe has been above average in implementing nutrient Best Management Practices in 2021/22. The Town has no freshwater waterbodies within its borders and only has a small area within the Swan Canning Catchment. Therefore, it is unlikely to contribute greatly to the nutrient load of the Swan Canning River System. The Town should, however, be mindful of the nutrients entering the ocean via the groundwater. Improvements are required in all areas of nutrient practices.

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 Town completed soil tests in sports fields, irrigated parks and foreshore areas, but not dry grass areas. It is recommended that the Town conduct soil and leaf tissue analysis of all fertilised areas and moisture testing in those areas that are also irrigated.

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	

The foreshore area in the Town is adjacent to the ocean rather than the river. 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 undertaken. Fertiliser is being applied in winter in active turf areas. It is recommended that fertiliser not be applied during winter when grass is likely to be semi-dormant and not using nutrients and fertiliser has a greater chance of being leached into groundwater due to heavy rain.

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 Town reported having no structural measures in place in the survey, but later confirmed that they have "dry" sumps or soakwells, which is an infiltration system so their answer was changed to reflect this information. 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?	N/A	
Are stormwater drains regularly monitored for nutrient levels?	N/A	
Are compensating basins regularly monitored for nutrient levels?	N/A	

The Town has no wetlands or compensation basins under its control and its stormwater is directed to "dry" sumps or soakwells (those that do not intersect the maximum groundwater table).

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)?	NO	
Do you have mechanisms in place to regulate sediment management?	YES	

It is recommended that the Town imposes conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying.

NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Are dog poo bins and bags provided in parks and foreshore reserves?	YES	BELOW AVERAGE
Are measures taken to educate the public about not feeding bread to waterbirds in foreshore reserves and parks?	NO	
Are ratepayers provided with advice on best practice in fertiliser management according to soil type?	NO	

It is recommended that the Town implement BMP measures to educate the public about not feeding bread to waterbirds and that they provide ratepayers with advice on best practice in fertiliser management according to soil type (refer to main report for measures that can be implemented). Although the Town does not have freshwater waterbodies within their borders, birds are highly mobile animals and can deposit nutrients in waterbodies elsewhere. SERCUL has a flyer that can form the basis of a sign educating the public about not feeding waterbirds. SERCUL also has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The Town can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

For further information contact - Natasha Bowden
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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 Town of East Fremantle 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 2022 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 2022

Overall BMP: **94% EXCELLING**

The Town of East Fremantle has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient management.

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	

Soil testing and leaf tissue analysis were conducted in sports fields, irrigated parks and foreshore areas. It is recommended that in those areas that are fertilised and irrigated, moisture testing also be conducted. If dry grass areas are fertilised then nutrient testing should also be undertaken in these areas.

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 Town does not apply fertiliser to foreshore areas and it is recommended that this practice continue. It is recommended that the Town continue to implement their current practices in other turfed areas, with the exception that fertiliser not be applied during winter when grass is likely to be semi-dormant and not using nutrients and fertiliser has a greater chance of being leached into groundwater due to heavy rain.

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	

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?	N/A	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	N/A	

The Town reported that it does not have any wetlands or compensating basins under its control. It is recommended that the Town report the results of nutrient monitoring of stormwater drains to their local community.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the Town continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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 Town provide ratepayers with more specific advice on best practice in fertiliser management according to soil type. SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The Town can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

SERCUL
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 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, 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) 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: **90% EXCELLING**

The City of Gosnells has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of 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 conducts soil tests and leaf tissue analysis of sports fields, irrigated parks and foreshore areas. Soil testing is undertaken in dry grass areas. In irrigated areas, moisture testing should also be conducted.

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 continue to implement their current practices in other turfed areas, with the exception that fertiliser not be applied during the summer months.

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?	YES	
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 continue to implement its current practices. It is recommended no further deciduous trees be planted on road verges or near waterbodies.

WATER QUALITY MONITORING

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

It is recommended that the monitoring of wetlands and compensating basins continue. Stormwater drains should also be monitored and that results of all monitoring be reported to the 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?	YES	ABOVE AVERAGE
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?	YES	

It is recommended that the City imposes conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying.

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
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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The Annual Nutrient Survey for Local Government Authorities Results 2022 Report is available at www.sercul.org.au/fertilisewise

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 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 2022 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 2022

Overall BMP: **70% ABOVE AVERAGE**

The City of Kwinana has been above average in implementing nutrient Best Management Practices in 2021/22. 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, fertiliser applications, nutrient management 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
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 only nutrient monitoring the City does is soil testing of sports fields, despite also fertilising passive turf areas. It is recommended that the City undertake soil testing and leaf tissue analysis of all areas that are fertilised and moisture testing of 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 undertake soil testing and leaf tissue analysis prior to fertilising and moisture testing at those areas that are also irrigated. Fertiliser should not be applied during winter when grass is likely to be semi-dormant and not using nutrients and fertiliser has a greater chance of being leached into groundwater due to heavy rain.

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	UNSATISFAC-TORY
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 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	EXCELLING
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?	YES	

It is recommended that the City add some additional mechanisms by which to regulate sediment management (refer to main report). Environmental conditions on developments should be monitored for compliance and if developers are found not to be in compliance they should be prosecuted.

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.

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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Melville 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 2022 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 2022

Overall BMP: **71% ABOVE AVERAGE**

The City of Melville has been above average in implementing nutrient Best Management Practices in 2021/22. 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?	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 conducts soil tests, moisture testing and leaf tissue analysis at sports fields, golf courses and irrigated parks and it is recommended that this practice continue. It does not conduct any testing or analysis of foreshore and dry grass areas, despite fertilising foreshore areas. It is recommended that before applying fertiliser to any area, but particularly foreshore areas, the City conduct soil tests and leaf tissue analysis and if they irrigate the area, moisture testing as well.

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?	NO	
Is it a controlled release, low water soluble fertiliser?	NO	

Despite stating that the fertiliser applied to foreshore areas was a controlled release, low water soluble form in the survey, the information provided about the brand of fertiliser applied showed it was slow release, so the answer to this question was changed to no. 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 undertaken. Analysis of the fertiliser applied to active and passive turf and foreshore areas indicates that single application rates of nitrogen are above the 40 kg/ha that is recommended, although it is in a controlled release form and testing is undertaken so these rates may be acceptable.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	YES	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?	NO	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies. A NIMP should be implemented for streetscapes and a policy to use local native plants as the first choice in landscaping enacted.

WATER QUALITY MONITORING

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

The City monitors nutrient levels in wetlands and reports the results to the local community. It is recommended that the City implement a monitoring program for stormwater drains and compensating basins and report the results to the 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?	YES	ABOVE AVERAGE
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?	YES	

It is recommended that the City impose conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying.

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.

For further information contact - Natasha Bowden
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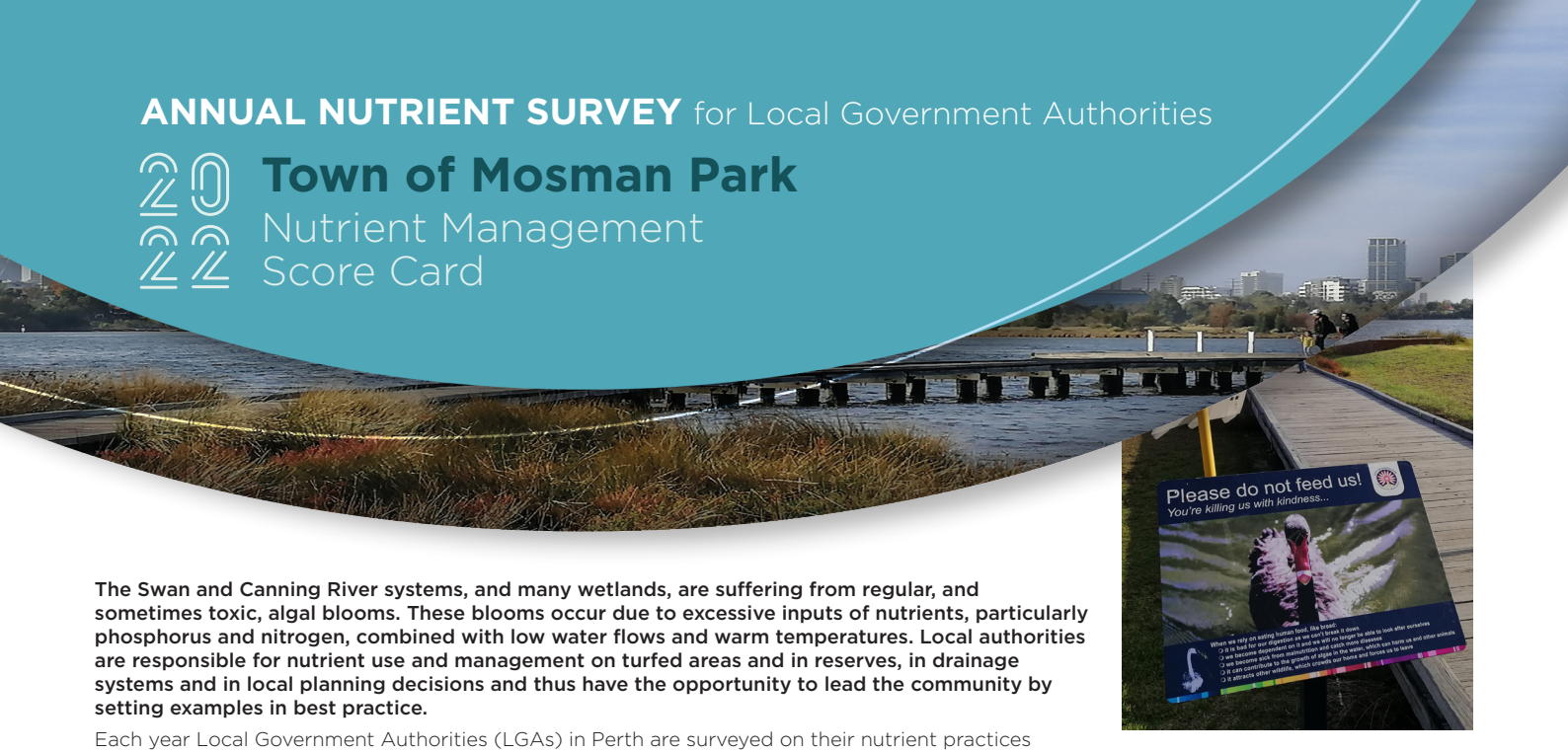
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 Town of Mosman Park 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 2022 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 2022

Overall BMP: **47% AVERAGE**

The Town of Mosman Park has been average in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in all areas of nutrient practices. An improved score may be possible if all questions received a response.

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	ABOVE AVERAGE
Is analysis conducted by a lab affiliated with ASPAC?	NO RESPONSE	
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 Town conducts soil tests and leaf tissue analysis on sports fields, golf courses and irrigated parks, and also does moisture testing at golf courses. If dry grass areas are fertilised then nutrient testing should also be undertaken in these areas. Moisture testing should be undertaken in all areas that are fertilised and irrigated. Any analysis undertaken needs to be conducted by a laboratory affiliated with ASPAC.

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 Town does not apply fertiliser to foreshore areas and it is recommended that this practice continue. It is recommended that the Town continue to implement their current practices in other turfed areas, with the exception that fertiliser not be applied during winter when grass is likely to be semi-dormant and not being used and has a greater chance of being leached into groundwater due to heavy rain.

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?	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?	NO	

It is recommended that the Town have structural measures in place, such as infiltration, conveyance or detention systems, to reduce nutrients entering waterbodies. It is recommended that no further deciduous trees be planted on road verges or near waterbodies. A NIMP should be implemented for streetscapes and a policy to use local native plants as the first choice in landscaping enacted.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	N/A	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 Town monitor stormwater drains and compensating basins for nutrient levels and report the results to their local community. 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?	NO RESPONSE	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	

It is recommended that the Town have provisions in their Town Planning Scheme or Planning Policies to enforce environmental conditions on development, including NIMPs. These plans should be monitored for compliance and developers that are not complying prosecuted. They should also have mechanisms in place to regulate sediment management (refer to main report).

NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Are dog poo bins and bags provided in parks and foreshore reserves?	YES	ABOVE AVERAGE
Are measures taken to educate the public about not feeding bread to waterbirds in foreshore reserves and parks?	NO	
Are ratepayers provided with advice on best practice in fertiliser management according to soil type?	YES	

It is recommended that the Town implement measures to educate the public about not feeding bread to waterbirds and have more specific advice on best practice in fertiliser management according to soil type. SERCUL has a flyer that can form the basis of a sign educating the public about not feeding waterbirds and a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The Town can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

SERCUL
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

For further information contact - Natasha Bowden
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The Annual Nutrient Survey for Local Government Authorities Results 2022 Report is available at www.sercul.org.au/fertilisewise

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022

City of Nedlands

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 2022 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 2022

Overall BMP: **97% EXCELLING**

The City of Nedlands has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications and nutrient education.

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 conducts soil tests, leaf tissue analysis and moisture testing on sports grounds, golf courses and foreshore areas and soil and moisture tests on irrigated parks. It is recommended that leaf tissue analysis is undertaken at irrigated parks to determine if fertiliser is required and that if dry grass areas are fertilised they be subject to soil tests and leaf tissue analysis.

FERTILISER APPLICATIONS

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

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 needed it should be applied as it currently is - phosphorus free, controlled release or applied to foliage and according to soil and moisture testing and leaf tissue analysis. Analysis of the fertiliser applied to active turf and foreshore areas indicates that single application rates of nitrogen are above the 40 kg/ha that is generally recommended, although as it is a controlled release fertiliser, nutrient monitoring and moisture testing is being conducted and the fertiliser regime is based on advice from a number of sources, including that of a turf consultant, this may be acceptable. *One of the two types of fertiliser being applied to foreshore areas is quick release and water soluble, however as it is applied to foliage and only in small amounts, the answer to this question was kept as yes. This fertiliser is, however, applied to foliage in winter when the grass is likely to be semi-dormant and nutrients not being used and fertiliser has a greater chance of being leached into groundwater due to heavy rain. It is recommended that fertiliser not be applied during winter.

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?	YES	
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 continue to implement its current practices. It is recommended that no further deciduous trees be planted on road verges or near waterbodies.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	N/A	
Are stormwater drains regularly monitored for nutrient levels?	N/A	
Are compensating basins regularly monitored for nutrient levels?	N/A	

The City has reported that it has no wetlands or compensation basins under its control and its stormwater is directed to “dry” sumps or soakwells (those that do not intersect the maximum groundwater table).

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the City continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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 provide more specific advice on best practice in fertiliser management according to soil type. SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The City can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Perth 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 2022 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 2022

Overall BMP: **76% ABOVE AVERAGE**

The City of Perth has been above average in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of fertiliser applications, nutrient management and development control and nutrient education.

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 conducts soil tests, leaf tissue analysis and moisture testing at irrigated parks and foreshore areas and it is recommended that this practice continues. If fertiliser is applied in dry grass areas it is recommended that soil tests and leaf tissue analysis is performed in these areas as well.

FERTILISER APPLICATIONS

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

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 50m. 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 undertaken. Due to a miscommunication on the part of SERCUL, no fertiliser values were provided by the City.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	YES	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?	NO	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies. A NIMP should be implemented for streetscapes and a policy to use local native plants as the first choice in landscaping be enacted.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	N/A	

The City regularly monitors wetlands and stormwater drain for nutrient levels, but does not report the results to their local community and it is recommended they adopt this practice. The City reports it doesn't have any compensation basins under its control.

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)?	NO	
Do you have mechanisms in place to regulate sediment management?	YES	

It is recommended that the City impose conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying. It is recognised that the City is often not the approving authority for large-scale developments in the city (more often being the State Government).

NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Are dog poo bins and bags provided in parks and foreshore reserves?	YES	ABOVE AVERAGE
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?	NO	

It is recommended that the City provide ratepayers advice on best practice in fertiliser management according to soil type. SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The City can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

ADDITIONAL INFORMATION PROVIDED

A Minimal Level of Sustainable Nutrition (MLSN) program is in place. Irrigation Central Control locks irrigation programs in the event of rainfall events. This not only works to conserve water but ensures turf is not watered past field capacity and reduces nutrient leaching. While the City does not have an endorsed policy on W.A natives as a first choice in public and private landscaping we have a number of high-profile gardens that are thematically planned around using W.A natives and endemic riverine species. The City's spring displays are now W.A native inspired as are the summer displays. As our Verge Assistance Program for residents evolves the first preference for waterwise species will be for W.A natives. West Australian species and endemic plants are a first choice and the City is strongly committed to supporting our unique flora and fauna.

SERCUL
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ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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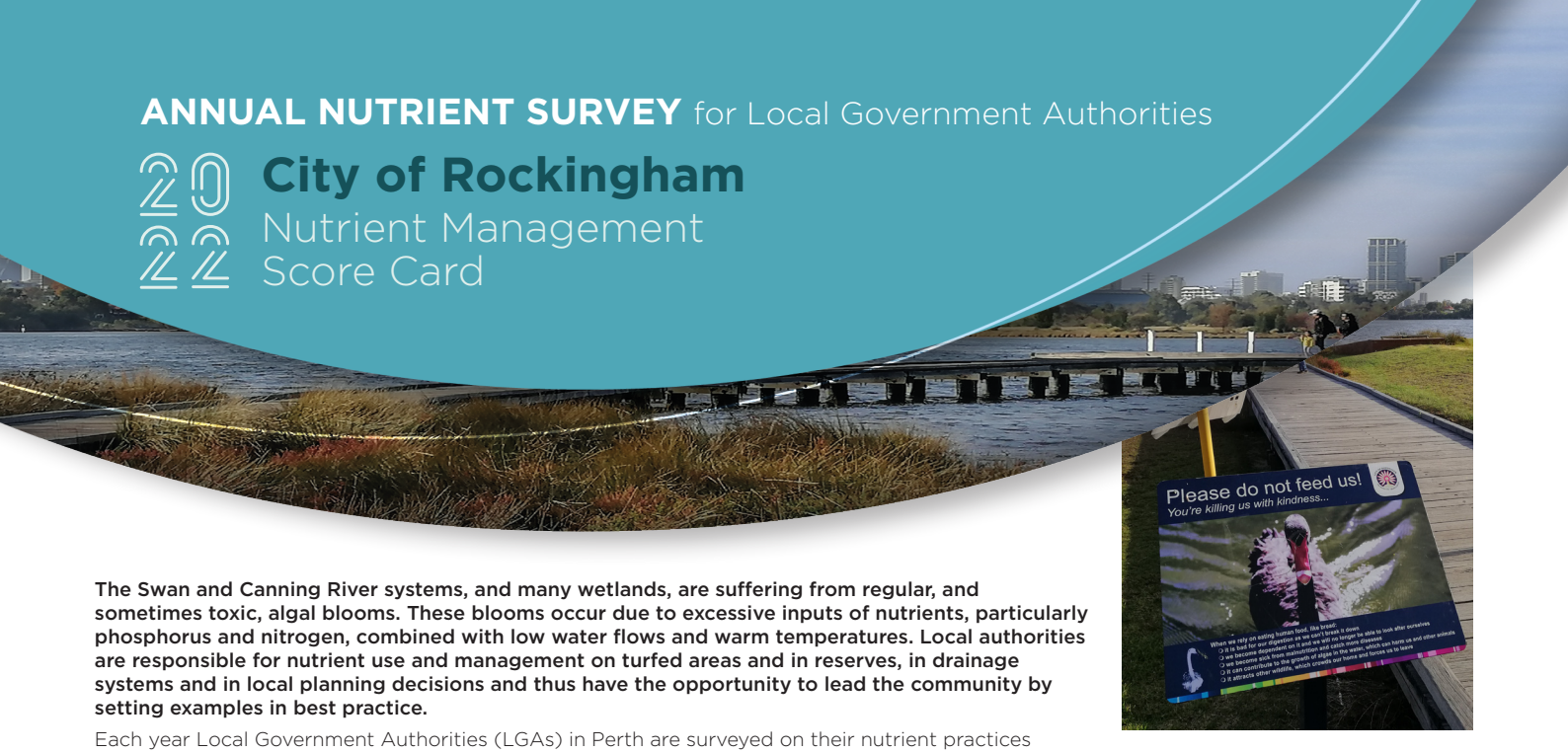
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Rockingham 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 2022 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 2022

Overall BMP: **81% EXCELLING**

The City of Rockingham has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications, nutrient management 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
Are regular soil tests &/or leaf tissue analyses conducted in waterbodies?	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 conducts soil tests and leaf tissue analysis for sports fields, irrigated parks, and foreshore areas. It is recommended that this practice continues and in irrigated areas moisture testing also be conducted.

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?	YES	
Does the fertiliser contain phosphorus?	NO	
Is it a controlled release, low water soluble fertiliser?	NO	

The City reported that they did not apply fertiliser to foreshore areas in the survey however information was provided on the amount and type applied so the responses were changed accordingly. 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 undertaken. It is recommended that the City continue to implement their current practices in other turfed areas, with the exception that fertiliser not be applied in summer.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering rivers and wetlands?	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	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies. A NIMP should be implemented for streetscapes. Some additional measures could be implemented to prevent nutrients from sediment entering waterbodies via stormwater drains (see main report).

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?	NO	
Are compensating basins regularly monitored for nutrient levels?	YES	

The City monitors compensating basins that are under their control for nutrient levels, however, does not report the results to the local community. It is recommended that the City also regularly monitor wetlands and stormwater drains for nutrients and report the results of all monitoring to the 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?	YES	EXCELLING
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?	YES	

It is recommended that the City continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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.

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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of South Perth 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 2022 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 2022

Overall BMP: **90% EXCELLING**

The City of South Perth has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications, nutrient management 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 conducts soil tests, leaf tissue analysis and moisture testing of its sports fields and golf courses. It conducts moisture testing of foreshore areas but no testing or analysis of dry grass areas or irrigated parks. It is recommended that the City conduct soil and moisture testing and leaf tissue analysis of irrigated parks that are fertilised and if it fertilises dry grass areas it conducts soil and leaf tissue analysis of these areas.

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. Analysis of the amounts of fertiliser applied to active turf indicates that it is being applied at a rate above the recommended single application rate of 40 kg/ha of nitrogen. Some fertiliser is also being applied in summer. It is recommended that the City ensure that each single application of nitrogen be below the recommended amount and that they do not fertilise in 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	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies and that the City implement a NIMP for streetscapes.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	YES	

The City regularly monitors wetlands, stormwater drains and compensating basins for nutrient levels, but does not report the results to the local community which it is recommended they do.

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)?	NO	
Do you have mechanisms in place to regulate sediment management?	YES	

It is recommended that the City imposes conditions requiring NIMPs on developments, monitors these for compliance and prosecutes developers that are not complying.

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.

ADDITIONAL INFORMATION PROVIDED

Since the City of South Perth has adopted the MLSN method for fertiliser recommendations we have had a significant reduction in fertiliser usage on the City's sporting fields.
The City of South Perth will send staff to blow deciduous leaves off verges in front of the street sweeper at hot spots for 6 weeks during the major leaf drop periods in autumn.

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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Stirling 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.

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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: **85% EXCELLING**

The City of Stirling has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications, nutrient management 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
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 conducts soil tests, leaf tissue analysis and moisture testing of sports fields, golf courses and foreshore areas and it is recommended that this practice continue. It is recommended that the City conduct soil and moisture testing and leaf tissue analysis of irrigated parks that are fertilised and if it fertilises dry grass areas it conducts soil and leaf tissue analysis of these areas.

FERTILISER APPLICATIONS

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

Despite stating that the fertiliser applied to foreshore areas was a controlled release, low water soluble form in the survey, the information provided about the brand of fertiliser applied showed it was slow release, so the answer to this question was changed to no. 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 undertaken. Analysis of the amounts of fertiliser applied to active turf, passive turf and foreshore areas indicates that some fertilisers are being applied at a rate above the recommended single application rate of 40 kg/ha of nitrogen, however where it is in a controlled release form and soil testing and leaf tissue analysis is being conducted this may be acceptable. Analysis of the fertiliser application information also indicates that the City is also applying some fertiliser to active turf at rates above the maximum water-soluble single application rate of phosphorus recommended for even a high PRI soil, although it is not specified how much of that phosphorus is water soluble. Fertiliser is also being applied in winter. It is recommended that the City ensure that each single application of nitrogen and single water-soluble application rate of phosphorus be below the recommended amounts and that they not apply fertiliser in winter.

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?	YES	
Is there a policy to use local native plants as the first choice in public (LGA) and private (developers) landscaping?	NO	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies and that the City implement a policy to use local native plants as the first choice when landscaping.

WATER QUALITY MONITORING

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

The City regularly monitors its wetlands and compensation basins for nutrient levels, but does not report the results to the local community. It is recommended that the City monitor wetlands, stormwater drains and compensating basins for nutrient levels and report the results to their local community.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the City continue to implement their current practices including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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 provide more specific advice on best practice in fertiliser management according to soil type. SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The City can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

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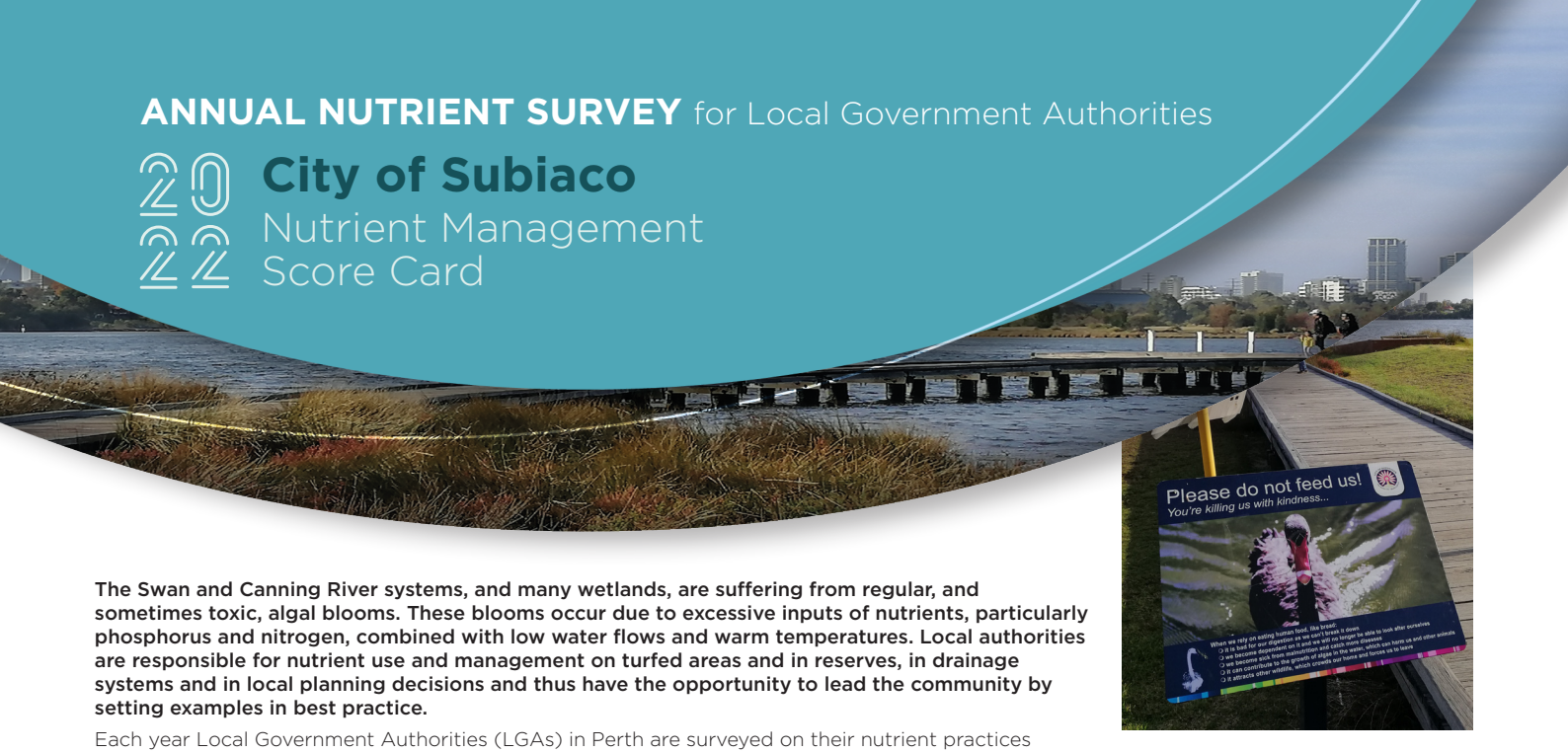
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Subiaco 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 2022 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 2022

Overall BMP: **67% ABOVE AVERAGE**

The City of Subiaco has been above average in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in all areas of nutrient practice.

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	ABOVE AVERAGE
Is analysis conducted by a lab affiliated with ASPAC?	YES	
Is plant available phosphorus in the soil measured using an appropriate test?	UNSURE	
Are rates of phosphorus determined by soil testing and Phosphorus Retention Index (PRI) results?	YES	

The City conducts soil tests, leaf tissue analysis and moisture testing of sports fields, irrigated parks and foreshore areas and it is recommended that this practice continue. It is recommended that if the City fertilises dry grass areas it conducts soil and leaf tissue analysis of these areas. The City should ensure that an appropriate test is being used to measure plant available phosphorus in the soil.

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 reported that it did not have any foreshore reserves in their boundaries however has Lake Jualbup, which has a sizable grassed area surrounding it. Therefore this response was changed to yes. As they did not provide fertiliser values for foreshore areas I have stated that they do not fertilise foreshore areas. If this is the case, then this practice should continue. Analysis of the amounts of fertiliser applied to active turf indicates that fertiliser is being applied at a rate above the recommended single application rate of 40 kg/ha of nitrogen, however as it is in a controlled release form and soil testing and leaf tissue analysis is being conducted this may be acceptable. Fertiliser is also being applied in winter. It is recommended that the City ensure that each single application of nitrogen be below the recommended amount and fertiliser not be applied in winter when the grass is likely to be semi-dormant and nutrients not being used and fertiliser has a greater chance of being leached into groundwater due to heavy rain.

NUTRIENT MANAGEMENT

QUESTION	RESPONSE	SECTION BMP
Are structural BMPs in place to reduce nutrients entering waterbodies?	YES	ABOVE AVERAGE
Are non-structural measures in place to prevent nutrients from grass clippings entering waterbodies via stormwater drains?	NO	
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?	YES	
Is there a policy to use local native plants as the first choice in public (LGA) and private (developers) landscaping?	NO	

It is recommended that the City put in place measures to prevent nutrients from grass clippings entering waterbodies via stormwater drains. Many of the same measures put in place to control deciduous leaves and sediment are also effective in controlling grass clippings (see main report). The City should also implement a policy to use local native plants as the first choice when landscaping.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	N/A	
Are compensating basins regularly monitored for nutrient levels?	N/A	

The City has stated that its stormwater is directed to “dry” sumps or soakwells (those that do not intersect the maximum groundwater table) and that it doesn’t have compensating basins. Wetlands are monitored for nutrient levels, however, the results are not reported to the community. It is recommended that the City report the results of wetland water quality monitoring to the community.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	NO	BELOW AVERAGE
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?	YES	

It is recommended that the Town have provisions in their Town Planning Scheme or Planning Policies to enforce environmental conditions on development, including NIMPs. These plans should be monitored for compliance and developers that are not complying prosecuted. They should also look to implement more mechanisms to regulate sediment management (refer to main report).

NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Are dog poo bins and bags provided in parks and foreshore reserves?	YES	ABOVE AVERAGE
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?	NO	

It is recommended that the City provide advice on best practice in fertiliser management according to soil type. SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The City can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

SERCUL
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ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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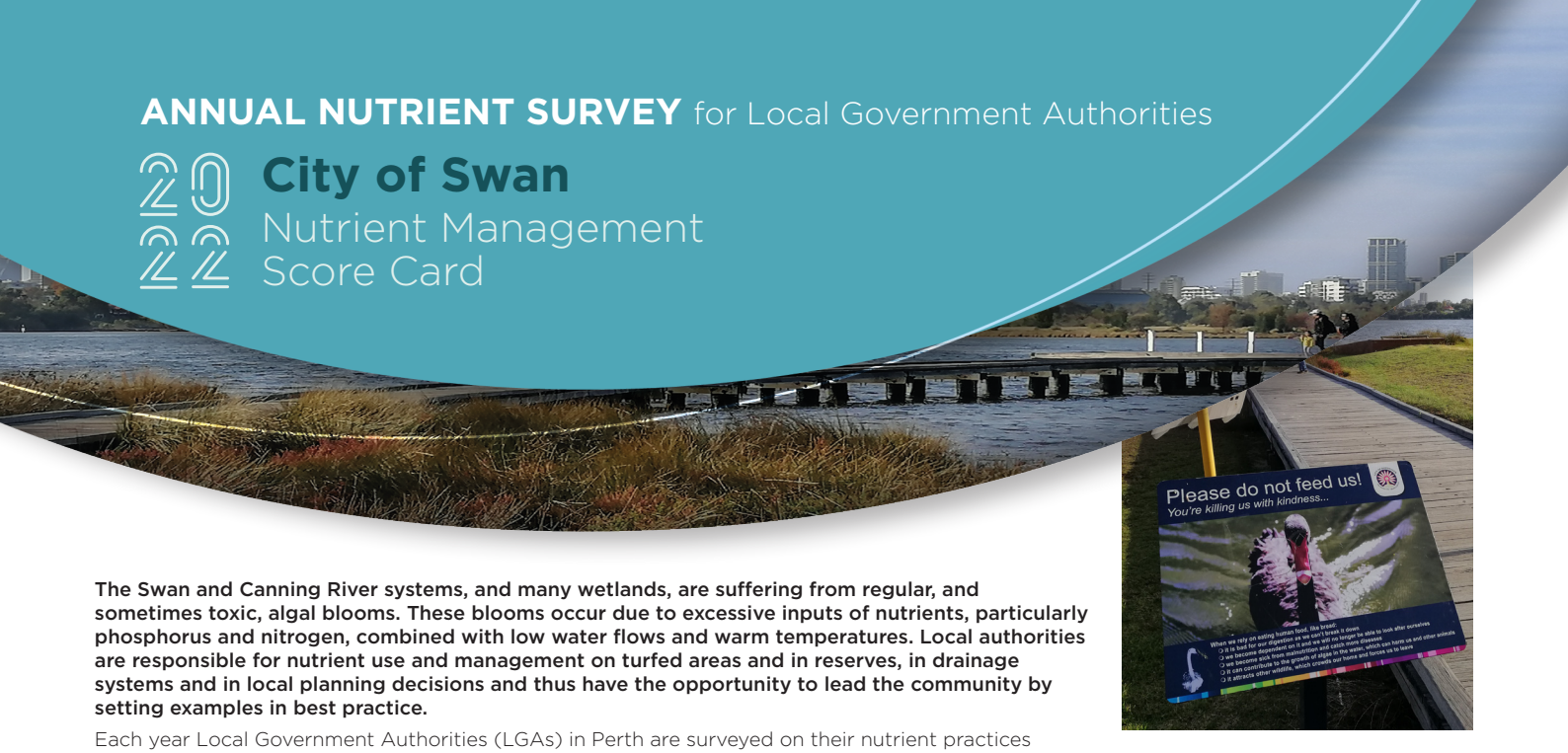
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Swan 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 2022 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.

100% BMPs

BEST MANAGEMENT PRACTICE SCORE 2022

Overall BMP: **100% EXCELLING**

The City of Swan should be commended for having all the assessed nutrient Best Management Practices in place. Further improvement could be made in the areas of nutrient monitoring and fertiliser applications.

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 conducts soil tests and leaf tissue analysis of sports fields and soil tests of irrigated parks. It is recommended that it also conduct leaf tissue analysis of irrigated parks and moisture testing of all fertilised areas that are irrigated. If fertiliser is applied to dry grass areas then soil tests and leaf tissue analysis should also be conducted in these areas.

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. The City applies foliar fertiliser containing nitrogen at levels above the recommended single application rate of 40 kg/ha to active and passive areas and applies some of it year round. It is recommended that the City not exceed the recommended single application rate of nitrogen and only applies fertiliser in autumn and spring.

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?	YES	
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 continue to implement its current practices. It is recommended that no further deciduous trees be planted on road verges or near waterbodies.

DEVELOPMENT CONTROL

QUESTION	RESPONSE	SECTION BMP
Are there provisions in the Town Planning Scheme or Planning Policies to enforce environmental conditions on development?	YES	EXCELLING
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?	YES	

It is recommended that the City continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

WATER QUALITY MONITORING

QUESTION	RESPONSE	SECTION BMP
Are wetlands regularly monitored for nutrient levels?	YES	EXCELLING
Are stormwater drains regularly monitored for nutrient levels?	YES	
Are compensating basins regularly monitored for nutrient levels?	YES	

It is recommended that the City continue to implement their current practices, including the reporting of results to the community.

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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ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 Town of Victoria Park 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 2022 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 2022

Overall BMP: **86% EXCELLING**

The Town of Victoria Park has excelled in implementing Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications, nutrient management 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
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 Town conducts soil tests and leaf tissue analysis of sports fields and foreshore areas and does moisture testing of irrigated parks. Moisture testing should be conducted at all fertilised areas that are irrigated/fertigated. If fertiliser is applied to dry grass areas and irrigated parks then soil tests and leaf tissue analysis should also be conducted in these areas.

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?	NO	
Is it a controlled release, low water soluble fertiliser?	NO	

The Town predominantly applies fertiliser containing low rates of nitrogen using fertigation. They stated the fertiliser used in foreshore areas was a controlled release, low water soluble fertiliser however it is not, so this answer was changed accordingly. 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. In irrigated/fertigated areas moisture testing should also be undertaken. It is recommended that the Town continue to implement their current practices in other turfed areas, with the exception that fertiliser not be applied during the summer months.

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	

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?	YES	AVERAGE
Are stormwater drains regularly monitored for nutrient levels?	NO	
Are compensating basins regularly monitored for nutrient levels?	N/A	

The Town regularly monitors wetlands for nutrient levels but does not report the results to their local community. It is recommended that the Town also monitor stormwater drains for nutrient levels and report the results of all monitoring 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?	YES	EXCELLING
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?	YES	

It is recommended that the Town continue to implement their current practices, including monitoring developments for compliance. If developers are found not to be in compliance they should be prosecuted.

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 Town continue to implement their current practices.

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The Annual Nutrient Survey for Local Government Authorities Results 2022 Report is available at www.sercul.org.au/fertilisewise

ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Vincent 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 2022 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 2022

Overall BMP: **70% ABOVE AVERAGE**

The City of Vincent has been above average in implementing nutrient Best Management Practices in 2021/22. 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?	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 conducts soil tests and leaf tissue analysis of its sports fields. No other testing is undertaken. It is recommended that the City undertakes soil testing and leaf tissue analysis of all turf areas that are fertilised and moisture testing if these areas are 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. Analysis of the amount of fertiliser applied to passive turf indicates that it is being applied at a rate above the recommended single application rate of 40 kg/ha of nitrogen. Fertiliser is also being applied in summer on active and passive areas. It is recommended that the City ensure that each single application of nitrogen be at or below the recommended amount and that they do not fertilise in summer as it encourages the overuse of water and turf may grow excessively.

NUTRIENT MANAGEMENT

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

WATER QUALITY MONITORING

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

The City stated that they monitor wetlands for nutrient levels but don't report the results to the community. It is highly recommended that the City also monitor stormwater drains and compensating basins for nutrient levels and report the results of all monitoring 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?	YES	BELOW AVERAGE
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	

It is recommended that the City impose conditions on development which include NIMPs and have mechanisms in place to regulate sediment management (refer to main report). Developments should be monitored for compliance and if developers are found not to be in compliance they should be prosecuted.

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
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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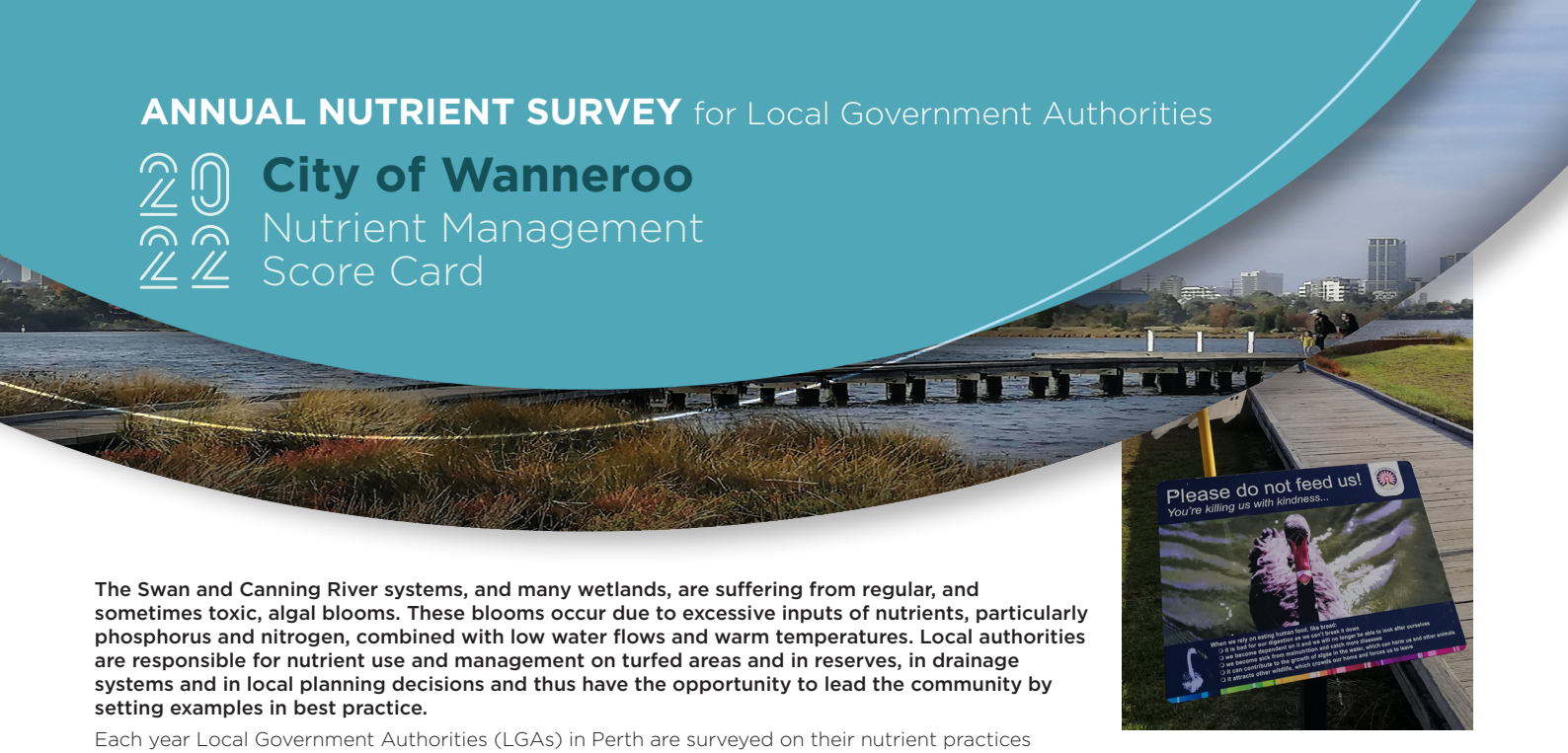
ANNUAL NUTRIENT SURVEY for Local Government Authorities

2022 City of Wanneroo 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 2022 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 2022

Overall BMP: **83% EXCELLING**

The City of Wanneroo has excelled in implementing nutrient Best Management Practices in 2021/22. Further improvements can be made in the areas of nutrient monitoring, fertiliser applications, nutrient management, water quality monitoring and nutrient education.

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 conducts soil tests, leaf tissue analysis and moisture testing at sports fields and golf courses. It does soil testing and leaf tissue analysis at irrigated parks and foreshore areas, but does not test moisture levels. It is recommended that the City test soil moisture levels at irrigated parks and foreshore areas if they are irrigated and if it fertilises dry grass areas that soil tests and leaf tissue analysis be undertaken.

FERTILISER APPLICATIONS

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

*One of the two types of fertiliser being applied to foreshore areas is quick release and water soluble, however as it applied to foliage and only applied in small amounts, the answer to this question was kept as yes. 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 undertaken. Analysis of the amounts of fertiliser applied to active and passive turf and foreshore areas indicates that some fertilisers are being applied at rates above the recommended single application rate of 40 kg/ha of nitrogen, however where it is in a controlled release form and soil testing and leaf tissue analysis is being conducted this may be acceptable. MP Pro Series NP is also being applied to active turf at rates above the maximum water-soluble single application rate of phosphorus recommended for even a high PRI soil, although it is not specified how much of that phosphorus is water soluble. Fertiliser is being applied during winter and summer in all turfed areas. It is recommended that the City ensure that each single application of nitrogen and single water-soluble application of phosphorus be below the recommended amounts. The City should also not fertilise in winter or 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	

It is recommended that no further deciduous trees be planted on road verges or near waterbodies and that the City implement a NIMP for its streetscapes.

WATER QUALITY MONITORING

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

The City regularly monitors wetlands and compensating basins for nutrient levels and reports these results to the local community. It is recommended that the City also monitor stormwater drains for nutrient levels and report the results of this monitoring to the 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?	YES	EXCELLING
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?	YES	

It is recommended that the City continue to implement their current practices, with the exception that environmental conditions on developments be monitored for compliance and if developers are found not to be in compliance they should be prosecuted.

NUTRIENT EDUCATION

QUESTION	RESPONSE	SECTION BMP
Are dog poo bins and bags provided in parks and foreshore reserves?	YES	ABOVE AVERAGE
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?	NO	

It is recommended that the City provide ratepayers with advice on best practice in fertiliser management according to soil type. SERCUL has a Fertilise Wise brochure that can be sourced for free from SERCUL and distributed to ratepayers at LGA locations. The City can also link its website to the Fertilise Wise page of SERCULs website (www.sercul.org.au/fertilisewise).

SERCUL
South East Regional Centre for Urban Landcare
ALGAE BUSTER PHOSPHORUS AWARENESS PROJECT

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The Annual Nutrient Survey for Local Government Authorities Results 2022 Report is available at www.sercul.org.au/fertilisewise