Nature Strip Improvement Guidelines

These guidelines will help you establish and maintain your street nature strip to a high standard, enhancing the value of your property, whilst considering the environment and complying with all City requirements.

Caution: Service Locations

Before commencing any landscaping requiring excavation work call 'Dial before You Dig' on 1100 or go to the website at www.1100.com in order to ascertain the location of any below ground services on your nature strip.

DIAL BEFORE YOU DIG www.1100.com.au

1. **Nature Strip Improvement**
2. **Approval for improvement other than lawn, mulch, low growing gardens & reticulation**
3. **Nature Strip Maintenance**
4. **Planting List**

1. Nature Strip Improvement

The following nature strip treatments are permitted without approval from the City provided the guidelines outlined below are adhered to.

a) Lawns

- Please refer to the brochure: *Environment Guidelines for the Establishment and Maintenance of Turf and Grassed Areas*. This brochure can be access at – *https://www.dpaw.wa.gov.au/images/documents/conservation-management/riverpark/Management/WA%20environmental%20guidelines%20for%20the%20establishment%20and%20maintenance%20of%20turf%20grass%20areas.pdf*
- Natural lawns should be kept mown to the height recommended for the particular season.
- Artificial/Synthetic turf is not considered a substitute for natural lawns. The City of Nedlands does not recommend the use of artificial grass but may approve its use as a nature strip treatment in particular situations. Approval is required from the City prior to installation. Refer below for more information.

b) Reticulation

- Reticulation must be designed to minimise spray drift outside the nature strip area and not spray onto footpaths or roads.
- Sprinklers are to be retractable or 'pop-up' types.
- Sub-surface and above ground drip irrigation is recommended where suitable.
- Must be operated in a way that does not cause any nuisance to others.
- Pipes must be laid and kept beneath the surface of the nature strip, not deeper than 300mm and not less than 150mm.
- No fitting connected to a pipe can project unreasonably above the surface of the lawn or garden.
- If connected to the public water supply, the system is to be designed to comply with the requirements of the Water Corporation. Regulations.
- All sub surface reticulation pipe is to be made is of PVC, polyethylene, galvanised iron or copper.
- All solenoid valves are to be located within the property and not on the nature strip.
- Reticulation must include a master valve able to isolate the water supply from the system.

c) Low Growing Nature Strip Gardens

Establishment and maintaining a 'waterwise' low growing nature strip garden is strongly encouraged by the City. Nature strip planting with low growing shrubs and groundcovers is the City's preferred nature strip treatment. Low fertiliser and low water use plants such as local species are preferred as these will reduce pressure on our depleting water supply, aid biodiversity and restrict nutrient input to the Swan and Canning River systems and groundwater resources.

d) Nature Strip Garden Planting

These guidelines are required to be observed to ensure that the sightlines and safe access of pedestrians and road users are maintained. Please follow these guidelines when planting your nature strip:

- Street trees should be protected and not damaged during all nature strip works, including the tree roots. Generally, an area of 2 metres in all directions surrounding the tree should not be disturbed. If you require a street tree(s) for your nature strip, please contact the City.
- Plants should not interfere with vehicle or pedestrian sightlines and must be maintained under 600 mm in height. Refer to the Plant List for plants that naturally grow to this size, including low growing groundcovers. Choosing suitable plant species will minimise the need for regular pruning.

- Plants should not encroach onto footpaths or roadways.
- Where a footpath does not exist on your side of the street, planting must provide unobstructed pedestrian access along the full length of the nature strip to a minimum width of 1.5 metres adjacent to the kerb line as well as unobstructed access around signs, water meters, telecommunication pits and manhole covers.
- Plants that are known to be hazardous are not to be used. This encompasses prickly, thorny, 'spear like', poisonous, toxic and potential weed problem plants. Plants deemed hazardous include roses with thorny stems, yuccas, cactus, agaves and oleanders. Refer to *www.agric.wa.gov.au/pests-weeds-diseases/weeds*, for information on weeds in WA.
- There should be no holes, stakes (other than street tree stakes) or trip hazards, including physical barriers on your nature strip.
- Vegetable gardens are permitted on nature strips on condition they conform to these guidelines.
- Areas not planted with lawn should be mulched with organic mulch, as this assists in controlling weeds and maintaining moisture – refer below.

e) **Nature Strip Mulching Guidelines**

- Where mulching is to be installed to nature strip gardens it must be organic mulch (mulches from plants such as bark mulch) and should be installed to a minimum depth of 75 mm for best results.
- Mulched nature strips may be left unplanted or planted with a nature strip garden.
- Use mulch consisting of large particles and heavy enough to remain in place and not drift onto footpaths and roads. It is advisable to excavate the soil to a depth of 75mm adjacent to kerbs and footpaths to assist in retaining the mulch.
- Mulch must not contain sharp or otherwise dangerous material.
- Avoid using mulch containing peat as it retains moisture at the surface of the soil, encouraging shallow root development and increasing reliance on irrigation.

- Use seasoned mulch. Using 'green' mulch (freshly produced from tree chippers) can cause nitrogen draw down within the soil which may adversely affects plants, and often has undesirable plant pathogens and seeds that may germinate.
- The finished level should be no higher than the surrounding top of kerb and footpath heights. This may require some soil removal in preparation for your garden.
- Where possible the City encourages the use of 'Certified Pathogen Free' mulch to assist in reducing the spread of diseases such as die-back (Phytophthora).

Nature Strip Garden Design Tips

- Plan your garden on paper as a sketched plan so that you get an idea of which plants to acquire.
- If you wish to include an edge or divider between components of your nature strip garden, or the adjacent property's nature strip, refer to the guidelines listed under 'Other Surfaces, Materials and Edging'.
- Choose plants suited to the site's environmental conditions – group plants with similar water/fertiliser/ shade and sun requirements.
- Mass plant the same species for increased effect as well as ease of maintenance. A simple scheme of two or three species on a nature strip can look very attractive.
- Consider the various forms of the plants – to aid sightlines, place groundcovers adjacent to footpaths and/or the two metre access edge along the nature strip, and low shrubs and strappy/grassy plants elsewhere.
- Consider plant form and colour and tie these in with your property's materials and the remainder of your garden.
- Consider 'lawn alternatives' – mass planting low growing groundcovers of one or two species to create an alternative 'green carpet' to the nature strip.

Where can I see a waterwise garden and get waterwise plant information?

The City has installed waterwise gardens at its Administration Centre and Library adjacent to Stirling Highway. These gardens have waterwise plants on display which are suitable for nature strips and home gardens. Some suggested waterwise nature strip plants are listed in this guideline – refer to the 'Plant List'.

WATER CORPORATION

The Water Corporation website provides information on best practice waterwise garden design:

https://www.watercorporation.com.au/save-water/in-the-garden

Greenways Policy

The City of Nedlands Greenways Policy aims to:

1. Maintain and protect the biodiversity within the City.
2. Provide habitat for local fauna.
3. Facilitate the movement of fauna (particularly avifauna) between areas of remnant bushland.
4. Increase the City's capacity to absorb greenhouse gas emissions.
5. Improve landscape amenity along the corridor routes.

The City is planting local native species of street and reserve trees wherever possible. Street trees, nature strip gardens and, to a lesser extent, natural lawns reduce storm water runoff which ends up in our rivers and other waterways. Excess nutrient from stormwater contributes to unhealthy rivers and algal blooms.

Residents can contribute to environmental links and aid stormwater management by planting local native plants on their nature strips and in their gardens.

Note.

Anyone who installs a nature strip treatment of any type, or purchases a property with an existing nature strip treatment, acknowledges that they shall:

- Accept all costs involved in the installation and maintenance of the nature strip improvement.
- Keep the nature strip improvements in a safe and tidy condition.
- Accept all liability of damages to persons or property as a result of the nature strip improvement.
- Accept that the nature strip remains a public space and may be traversed by the public if and when required.
- Water or maintain the nature strip in a way that does not cause any nuisance to others.
- Accept that the improvements are located on the property of the City of Nedlands.
- Ensure no damage is caused to underground services.

2. Approval for improvement other than lawn, mulch, low growing gardens & reticulation

In order to protect the City's street trees, to assist with stormwater management and to ensure the safety of people using the Thoroughfare; the following nature strip treatments require individual assessment by the City.

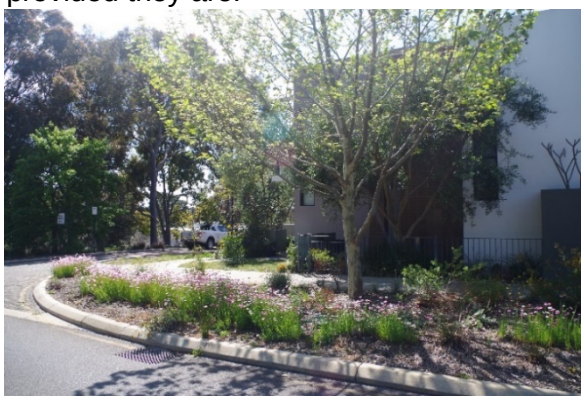
Did you know?
Trees can be severely damaged by soil compaction, damage to their roots, 'collar rot' and lack of water and nutrients. The installation of paving, concrete and artificial lawn around or close to trees can all give rise to these circumstances. The City's street trees are a valuable asset and require protection to ensure they continue to provide their many benefits to the community.

The following treatments require a written application to the City. It is unlawful to install this type of development *prior* to reviewing written approval by the City.

1. **Paving and Crossovers**
    - All vehicle crossovers require City approval. For the construction of Crossovers - please refer to the City's Crossovers Specification available on the City's website or upon request to the City.
    - Paved areas should not provide formal nature strip parking, unless approved in writing by the City.
    - Nature strips cannot consist of more than 40 percent of hardstand area. This includes crossovers + footpaths + all hardstand materials including concrete, asphalt and paving.
    - Pavers used on the nature strip must be heavy duty with a minimum thickness of 60 mm.
    - Small style pavers (for example cobblestones, brick sized pavers and pavers up to 300 x 300 mm) are preferred, as they have a higher level of permeability than larger format paving, allowing for better drainage and water permeation. Porous pavers are also available, and the City strongly encourages considering this option.
    - If a property adjoins two streets, each street nature strip will be considered independently.
    - A minimum of two (2) metres, depending on the tree species and size, is recommended between the trunk of a street tree and the installation of paving.
    - Installation of pavers and other materials should be to the required standard of the City; including compacted subbase and properly retained edges.

2. **Artificial / Synthetic turf**
    - Nature strips cannot consist of more than 20 percent of artificial / synthetic turf.
    - If a property adjoins two streets, each street nature strip will be considered independently.
    - A minimum of two (2) metres, depending on the tree species and size, is required between the trunk of a street tree and the installation of synthetic turf.
    - The supply and installation of synthetic turf must be to the required standard of the City with consideration to material, colour and drainage specifications.
    - Details of materials, colour and drainage specifications are to accompany the nature strip improvement application.

3. **Other Surfaces, Materials and Edging**
    a. **Not Permitted**
        - o Inorganic mulches such as pea gravel, gravel, crushed brick or rock or other stone aggregates that are loosely placed on the ground surface.
        - o Kerbing, rocks and other elements including bollards, decorative items and garden ornaments that protrude unreasonably above the natural level of the nature strip constituting a tripping hazard.
        - o Physical barriers shall not be installed.
    b. **Permitted**
        - o Edgings and dividers on or between nature strips, only to the extent required to provide sufficient division, provided they are:
            1. Flush with the nature strip surface, footpath and the top of the kerb; and
            2. At least two (2) metres from a street tree; and
            3. Constructed of flush concrete kerbing (not raised extruded kerbing) or bricks or trafficable pavers, which are securely fixed, for example laid on concrete.



Note.
All nature strip developments must contain a **minimum 40 percent** of natural garden or grass.

Written Application for Approval to Install Nature Strip Treatments other than Lawn, Mulch, Low Growing Gardens and Reticulation
The written application should be on the prescribed Nature Strip Improvement Application form and should include:

- A scaled plan at 1:100 of the proposed nature strip treatment/s, including: relevant or existing features such as street trees and driveways / crossovers, all clearly labelled.
- Distances between features must be shown, for example, '2.2m street tree to edge of driveway'.
- Details of installation for hardstand areas; including materials, paver type, subbase and edge retention.
- Where the installation also includes a nature strip garden or lawn:
    - ✓ A list of plants to be used, using botanical names; and
    - ✓ Proposed or existing irrigation systems.

Nature Strip Improvement Application forms are available from the City's website and Administration centre. An Administration Fee will be incurred for processing the application and inspecting the nature strip.

- Approval will be subject to the conditions that the City considers appropriate.
- Public amenity and streetscape aesthetic will be taken into account as part of each assessment.

- If nature strip treatments that require approval are installed *without* City approval, the City may require they be amended or removed entirely, with the cost to do this incurred by the resident.

Applications can be submitted addressed to:

Manager Parks Services
City of Nedlands
PO Box 9
Nedlands WA 6909

3. Nature Strip Maintenance

Street Trees
The City undertakes all street tree care as part of its maintenance program and is currently working towards keeping records of all the 21,600 plus street trees in the City. It is an offence for anyone other than the City to prune or remove a street tree. If you would like to request pruning or if you require a street tree/s for your nature strip, please contact the City and ask to speak to an officer from Parks Services.

Access and Sightlines: Footpaths and Roads
In order to maintain access and sightlines to footpaths and roads, all plants and tree branches encroaching from private properties and nature strip gardens need to be regularly trimmed. Any faults or damage to footpaths should be reported to the City.

Chemicals and Fertilisers
- To minimise over fertilising, fertilisers should only be applied when symptoms of nutrient deficiency occur, such as yellowing. Local native plants require less fertiliser than introduced plants as they are adapted to our low nutrient soils.
- Fertilise in spring or autumn, as summer fertilising increases water use, and fertiliser applied during winter may be washed into stormwater drains or leached into groundwater.
- Weed, pest and disease control should be dealt with using physical non-toxic means, where possible, rather than relying solely upon chemical control.
- Only chemicals such as herbicides or pesticides approved for use in the domestic garden may be used. Caution should be applied during application, with manufacturer's directions followed. Targeted application is required, with a preference for wiping, brushing or handheld spraying;

Levels and Trip Hazards
- The level and grade of a nature strip should remain consistent with the surrounding levels. Edging and dividing materials, and service pits should remain level with the ground.
- There should be no holes, stakes (other than street tree stakes) or trip hazards, including bollards and physical barriers on your nature strip.

Nature Strip Works and Services Maintenance
- When carrying out nature strip works, to reduce the risk to yourself, pedestrians and road users, safety precautions must be taken.
- Please remember that service providers, including the City, retain the right to access the nature strip for service maintenance works that may disrupt or damage nature strip gardens and other nature strip treatments. Reinstatement is generally at the cost of the landowner.

If you are Building – Nature Strip Licences
No materials are to be stored on the nature strip without a Nature Strip (Verge) Materials Permit. A permit to store materials on the can be obtained from the City's administration centre. Please contact the City.

4. Planting List

The table below contains waterwise plants that can be considered for planting on the nature strip and that generally grow less than 60 cm tall. The growth habits of some of these plants will vary dependent on-site conditions and watering and as a result may require pruning to keep them below the required 60 cm height requirement.

Scientific Name	Common Name	Height (m)	Flowers	Comments
GRASSY & STRAPPY PLANTS				
Anigozanthos humilis	Catspaw	0.5	Aug-Oct	Brilliant yellow, red and orange paw flowers. Perennial plant that attracts honeyeater birds. Lime tolerant.
Anigozanthos manglesii	Mangles kangaroo paw	0.5	Sep-Nov	Brilliant red and green flowers. Attracts honey eating birds. Proclaimed the floral emblem of Western Australia in 1960.
Anigozanthos ssp.	Kangaroo paw species	0.5 - 1.0	Aug-Nov	Choose lower growing varieties. Many varieties including dwarf growing hybrids. Various flower colours. Make good cut flowers. Best grown in full sun.
Conostylis aculeata	Prickly conostylis	0.5	Sep-Oct	Perennial clumping herbaceous plant with clusters of yellow flowers.
Conostylis candicans	Grey cottonheads	0.5	Aug-Sep	Grass-like plant with grey foliage and bright yellow bobble flower heads.
Dianella divaricata	Flax lily	0.5 - 1.0	Jun-Aug	Strappy leaf, flax like plant with small star-shaped blue flower. Important for the native blue-banded bee. Best grown in full sun.
Dianella spp.	Clumping flax lily	0.5 - 1.0	Jun-Sept	Many varieties with leaves differing in colour and texture.
Ficinia nodosa	Knotted Club Rush	0.7	Sept-Dec	Dark green cylindrical leaves with numerous brown spikelets each contain several small flowers. Pruning is effective.
Isolepis cernua	Small Knotted Club Rush Sedge	0.3	Aug-Dec	As above, but with lower growing habit.
Lomandra spp.	Lomandra	0.5 - 1.2	Sep-Jan	Grass like plant with flowers that are yellow and perfumed. Great foliage plant for the garden.
Macropidia fuliginosa	Black & Green Kangaroo paw	0.5	Aug-Oct	Strap leaf plant flowering in spring. Full sun to slightly shaded.
Orthrosanthus laxus / multiflorus	Morning iris	0.5	Aug-Oct	Clumping Plant with attractive blue flowers. Mass plant for good effect.
Patersonia occidentalis	Western patersonia / Purple flag	0.5	Sep-Dec	Local tufted perennial that produces blue, purple or violet flowers spring and summer.
Thysanotus mangelesianus	Fringed lily	0.5	Aug-Nov	Attractive clumping herb like plant with a flat bladed leaf and delicate mauve purple flowers spring to early summer.
Thysanotus multiflorus	Many flowered fringed lily	0.5	Sep-Jan	
Thysanotus thyrsoideus	Fringed lily	0.5	Sep-Jan	
SHRUBS				

Acacia lasiocarpa	Dune moses	1	Jun-Oct	Shrub with yellow ball shaped flowers. Variety of soils.
Acacia willdenowiana	Grass wattle	0.5	Jun-Oct	Slender erect or scrambling shrub with white cream/yellow flowers.
Banksia (Dryandra)nivea	Couch honeypot	0.5	May-Sep	Low shrub with attractive foliage and interesting 'honeypot' flowers. Can be slow to establish but is very attractive to many native insects and small birds.
Brachyscome iberidifolia	Swan-River daisy	0.5	Aug-May	The Swan River Daisy has attractive white, blue or purple flowers.
Chrysocephalum baxteri	Paper Daisy,	0.5	Oct-Apr	Long lasting white daisy flowers with a yellow centre, are produced from late spring to early autumn.
Eremea pauciflora	Orange flowered eremea	0.3-0.6	Sept-Feb	Stunning bright orange feather flowers spring to summer.
Eremophila glabra prostrate	Tar bush	0.5	Jul-Jan	A compact ground cover with silver foliage and a profusion of tubular yellow flowers.
Grevillea crithmifolia prostrate	Crithmifolia Grevillea prostrate	0.5	Aug-Nov	Low growing with 3m Spread **ensure prostrate variety. Aromatic white flowers from winter to spring on a green carpet of very dense low - quick growing shrub.
Grevillea thelemanniana 'Seaspray'	Seaspray Grevillea	0.7	May-Nov	Small shrub with soft grey green foliage and small red flowers. Fast growing.
Gompholobium aristatum	No common name	0.5	Jul- Dec	Erect shrub with yellow flowers.
Helichrysum italicum	Curry Plant	0.5	Nov-Mar	Densely hairy, silver grey aromatic foliage and small round yellow everlasting flowers in summer.
Hibbertia racemosa	Stalked guinea flower	0.3	Jul-Nov	Low spreading shrub to 1m wide. Grey green leaves and yellow flowers from late winter to spring.
Hovea trisperma	Common hovea	0.5	Jun-Sep	Straggling, ascending shrub, with purple-blue flowers.
Hypocalymma robustum	Swan River myrtle	1	Jul-Oct	Shrub with long slender branches with short fine dark green leaves and showy clusters of pink flowers in spring.
Isotropis cuneifolia	Granny bonnets	0.3	Aug-Oct	Shrub with yellow and red flowers that are produced from August to October.
Jacksonia sericea	Waldjumi	0.6	Dec-Feb	Low spreading shrub with orange pea flowers December to February.
Lechenaultia floribunda	Free-flowering Leschenaultia	0.5	Sept-Dec	Attractive small shrub with blue to purple flowers. Looks very effective in group plantings.
Leucophyta brownii	Cushion bush	0.5	All year	Erect, compact shrub with grey foliage and yellow flowers.
Lobelia tenuoir	Slender lobelia	0.5	Oct-Jan	Slender erect annual, herb, with blue flowers. Dies at ground level then successively dies up the stem setting seed as the death moves up the stem. It regrows from seed.
Melaleuca incana nana	Dwarf Grey Honey Myrtle	0.5	Sept-Dec	Small shrub which is a dwarf form of the species that forms a dense round dome of grey green slightly weeping foliage. **ensure dwarf variety.
Petrophile linearis	Pixie mops	0.5	Sep-Nov	Small shrub with unusual mop-like blooms that are covered in soft hairs.
Petrophile serruriae	A pixie mop	1	Aug-Nov	Deeply divided leaves and pink flower cones, winter to summer.
Philotheca spicatus	Salt and pepper	0.5	Aug-Sep	Small branching, sprawling shrub with slender leaves and pink mauve star flowers in spring. Tolerates reasonable shade.
Pimelea rosea	Rose banjine	1	Aug-Nov	A small shrub with small light green leaves and masses of purple-pink tubular flowers. Attracts butterflies.

Scaevola varieties	Fan-Flower	0.5	Jun-Dec	A number of varieties of this native plant have been developed. Attractive deep blue, purple or white flowers, with strap leafed foliage.
GROUND COVERS				
Banksia blechnifolia	Southern Blechnum Banksia	0.5	Aug-Nov	Prostrate plant with pale woolly orange Banksia flowers at ground level. Very hardy. Bird attracting.
Banksia petiolaris	Petiolaris Banksia	0.5	Sept-Nov	Prostrate plant to 1m spread with ornamental toothed leaves with reddish-pink new growth. Large yellow flower spikes
Banksia repens	Creeping Banksia	0.4	Sept-Nov	Ground cover. Full sun to slightly shaded.
Dampiera linearis	Common Dampiera	0.6	Jul-Dec	Groundcover with wedge-shaped leaves and attractive blue flowers. Can be grown alongside non-native plants to great effect.
Enchylaena tomentosa	Barrier Saltbush/Ruby Saltbush	0.6	Sept-April	Spreading groundcover with attractive blue-grey foliage. Produces berries that attract many types of honeyeaters. Effective at excluding weeds once established. With attractive blue-grey foliage.
Eremophila glabra prostrate	Tar Bush/ Emu Bush	0.3	Sept-Dec	Prostrate groundcover to 1m spread. Attractive silver foliage. Yellow/ Orange flowers that attract small birds.
Frankenia pauciflora	Sea Heath	0.5	Jul-Feb	Tolerant of saline conditions. Lovely pink / white flowers.
Grevillea curviloba ssp. Incurva prostrate	Narrow Curved Leaf Grevillea	0.6	Sept-Dec	Low growing - 3m Spread **ensure groundcover variety. Light green leaves with perfumed white spider flower. Rapid growing in a moist well drained soil in full sun.
Grevillea obtusifolia Gin Gin Gem	Gingin Gem Grevillea	0.6	Aug-Nov	Dense low groundcover to 3m spread. Good lawn substitute - low dense fast growing hardy green groundcover with small pinkish spider flowers.
Hemiandra pungens	Snakebush	0.5	All year	Low to medium groundcover to 700mm in height. Flower colour may be pink, lilac, mauve or white that may appear year-round, but are most prolific in the spring.
Kennedia prostrata	Running Postman	0.3	Jul-Nov	Attractive prostrate groundcover with red flowers. May need to be replaced every couple of years.
Myoporum parvifolium	Creeping Boobialla	0.3	Sept-Dec	Dense matting groundcover to 2 - 3m spread. Good lawn substitute. Light green, fine foliage with layering stems and small white/ mauve star flowers.