



ATTACHMENTS TO REPORTS

ORDINARY COUNCIL MEETING

ITEMS UNDER SEPARATE COVER

18 SEPTEMBER 2024

TABLE OF CONTENTS

ITEM	SUBJECT	PAGE NO
14.1	218 Lyndhurst Lane Easement Drainage Works	
	Attachment 1 Stormwater Report - 218 Lyndhurst Lane	2
	Attachment 2 Kehoe Myers Engineering Report - 218 Lyndhurst Lane	20
15.11	Environmental Sustainability Strategy Action Plan Review 2023-2024	
	Attachment 1 SDRC Environmental Sustainability Strategy Action Plan 2023-2024 Review.....	38
	Attachment 2 SDRC Environmental Sustainability Strategy Action Plan 2024-25	64

218 LYNDHURST LANE EASEMENT DRAINAGE WORKS

Stormwater Report - 218 Lyndhurst Lane

Meeting Date: 18 September 2024

Attachment No: 1



Stormwater Report

218 Lyndhurst Lane, Rosenthal Heights



Dean Griffin


21 November 2022

20-088

Griffin Civil Engineers Pty Ltd

Stormwater Report

High level report on the current capacity and overtopping of existing council drainage infrastructure into Lot 1 on SP147249.

Version:	1.00
Author:	Dean Griffin
RPEQ number:	16155
Date:	21/11/2022
Signature:	

Contents

Executive Summary.....	2
Introduction.....	2
Scope	3
Existing Infrastructure.....	3
Site Inspection.....	4
References	4
Limitations & Assumptions.....	4
Analysis.....	5
Section 1 – Lyndhurst Lane verge.....	9
Section 2 – Easement A.....	11
Section 3 – Warner Street verge.....	13
Discussion.....	14
Recommendations.....	16

Executive Summary

A high-level stormwater report was requested to compare the capacity of the existing Council drainage infrastructure in Warner Street and through Easement A on SP 147249.

Easement A is a drainage easement over Lot 1 SP147249, granted in favour of Council for the purpose of conveying upstream catchment stormwater flows from a sag in Warner Street, to the kerb in Lyndhurst Lane.

The existing grassed channel within the easement has reduced capacity with respect to the contributing catchment Major System Design ARI flows and overtops beyond a 1 in 2-year storm.

The upper section of the existing grassed channel within the Warner Street verge is silted up and overtops at less than 1 in 1-year storm.

Overland flows and subsurface flows, still evident days after rain, are creating an actionable nuisance to the landowner through damage to gardens, driveways, and under buildings.

Introduction

Griffin Civil Engineers Pty Ltd (GCE) were engaged by our client to prepare a report to comment on the capacity of Council maintained infrastructure and overtopping runoff affecting their property.

The site is in Lyndhurst Lane, Rosenthal Heights QLD 4370 (Lot 1 SP147249).



Figure 1 - Locality Plan © OpenStreetMap

The site includes a 632 sqm drainage easement (A/SP147249) that is intended to convey upstream road drainage runoff through Lot 1 SP147249 to the kerb in Lyndhurst Lane.

Stormwater Report

A grassed channel extends from the culvert headwall along the Warner Street verge, through easement A, and across the Lyndhurst Lane verge to a depression in the back of the kerb.

Scope

The scope of this report is a high-level review of current capacity, based on Rational Method hydrology and using one-dimensional hydraulic calculations.

The scope does not include two-dimensional rain on grid analysis or flood frequency analysis methods.

This report is not intended to question the original design of the infrastructure, development approvals, nor the design standards in place around the time of construction.

This report contains engineering opinion and must not be construed as legal or financial advice.

This report primarily addresses the current state of the grassed channel within Easement A SP147249 and immediately upstream within the Warner Street verge.

Existing Infrastructure

The existing SDRC infrastructure is shown below in Figure 2.

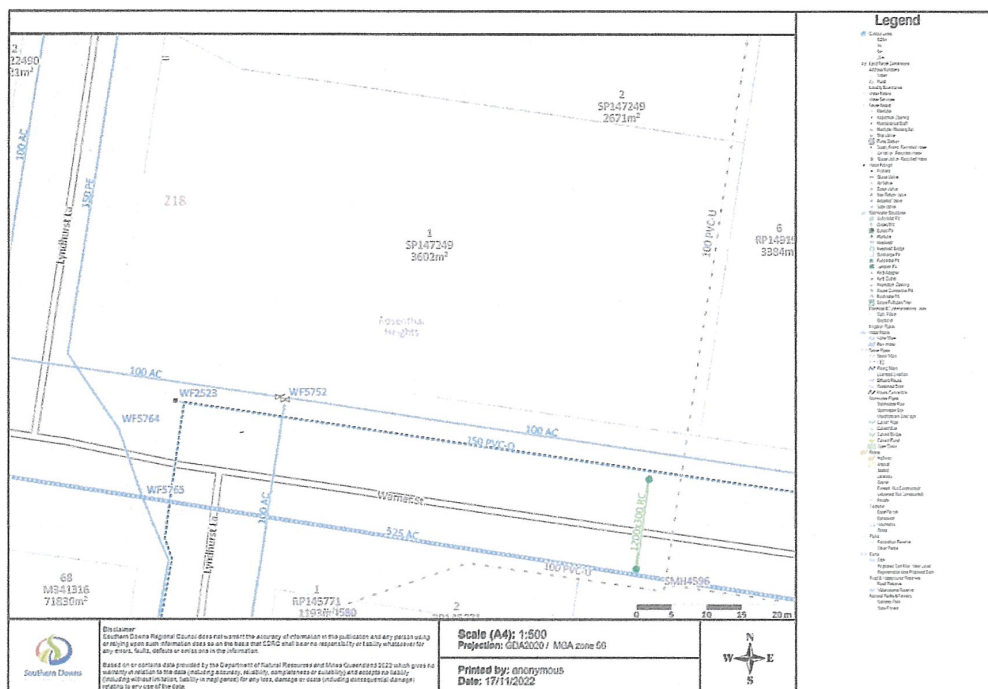


Figure 2 – SDRC Online Mapping

Before You Dig Australia (BDYA) searches indicate Telstra, NBN and Ergon assets in the vicinity also.

Site Inspection

A site visit was undertaken on 18/10/2022. The weather was fine after recent rain. GCE staff member on site was Dean Griffin.

Observations noted:

- The Lyndhurst Lane kerb depression is small and the verge slopes back towards Lot 1 between the channel and the driveway.
- The Easement grassed channel was waterlogged, boggy, and unable to be effectively mown.
- The Warner Street verge swale showed evidence of scour and sediment build up at the culvert outlet
- The inlet to the box culvert across Warner Street was silted to approximately two thirds of its depth. The inlet is in a sag in the Warner Street alignment.
- Lots 1, 2, 3 & 4 on SP147249 have grated roof water collection pit in the north-western corner of each lot. All four discharge to the kerb in front of 208 Lyndhurst Lane.
- Client supplied photos were reviewed taken during and directly after inundations.
- Subsurface flows from ponded channel sections was viewed near the gravel driveway.

References

References for modelling and analysis:

- SDRC Online Mapping
- Queensland Urban Drainage Manual QUDM
- TMR Road Drainage Manual
- Elvis - Elevation and Depth - Foundation Spatial Data
- SDRC Planning Scheme
- Detail Survey provided by Gary Hayes & Partners

Limitations & Assumptions

The installation date of the existing drainage infrastructure and swale was unobtainable from the Council Asset Manager. Aerial photography dated 2004 viewed in Google Earth shows the structures in place.

Stormwater calculations used in 2004 were likely based on Eastern Downs Regional Organisation of Councils (EDROC) Manual design criteria and Australian Rainfall & Runoff (ARR) 1987.

It should be noted, a newer ARR2016 approach is now generally required for stormwater calculations, as per the Queensland Urban Drainage Manual (QUDM) guideline.

In this instance however, for comparing the original design to its current physical conditions, we consider it appropriate to adopt those earlier design references & approach, EDROC & ARR87.

Detail survey has been provided by a Registered Surveyor to an appropriate level of accuracy. There may be minor discrepancies in the existing levels surface due to triangulation and point spacing.

Analysis

Hydrology

The catchment area contributing to the grassed channel extends up Lyndhurst Lane to the highest point at the reservoir.

It is shown in Figure 3 and has an area of approximately 6.6 hectares. Land Use Development Category was assumed to be Village Residential, Residential Expansion (Lots 2000m²).

Using the Rational Method with the design criteria outlined in Section 5.22J of the EDROC Manual ($I_{10} = 45.14$ mm/h, $C_{10} = 0.47$, $T_c = 28$ min) the following flow rates were estimated:

Average Recurrence Interval, ARI (Years)	Intensity (mm/h)	Peak Discharge (m ³ /s)	EDROC Design Criteria Warwick
1	40.27	0.278	
2	51.53	0.377	Minor System Design ARI applicable to Land Use
5	64.02	0.524	
10	71.68	0.618	Minor Road Kerb & Channel, & Cross Drainage Design ARI
20	82.37	0.745	
50	96.98	0.961	Major System Design ARI
100	108.33	1.120	

Major System Design ARI is intended to be carried within the road reserve or through a dedicated easement.



Figure 3 – Contributing Catchment © SDRC Online Mapping 2022

Hydraulics

The channel invert profile, as extracted from the detail survey, is shown below at a distorted scale. A dashed line is also shown representing the suggested regraded invert.

Manning's formula $[Q=A.R^{2/3}.S^{1/2}/n]$ for open channel flow was used with average slope and hydraulic radius between sections.

It should be noted the roughness value 'n', for flows depths greater than 200mm, can vary between 0.025 and 0.035 depending on grass length & coverage.

Manning's roughness value 'n' has been assumed to be 0.03 as this is a conservative average value for a mown grass lined channel.

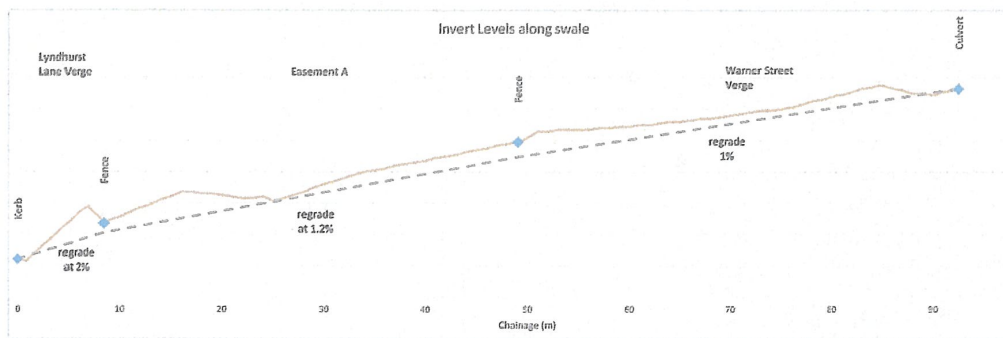


Figure 4 - Channel Invert

The channel invert profile levels are controlled at either end by fixed structures (i.e. kerb & culvert).

A possible regraded invert shown is dashed in Figure 4.

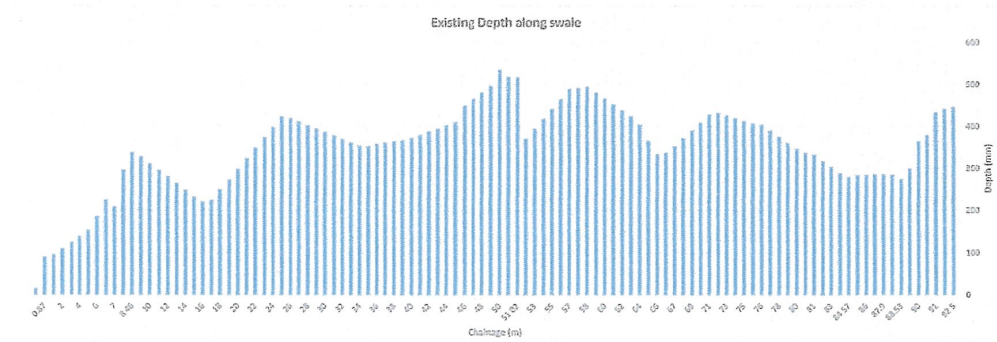


Figure 5 - Channel Depths

Existing channel depths are shown in Figure 5 for information only and it should be noted a maximum 300mm depth of flow, along with freeboard should be provided for Major System Design ARI flows.

A 1D HECRAS model was created for comparison and to determine locations where overtopping could occur.

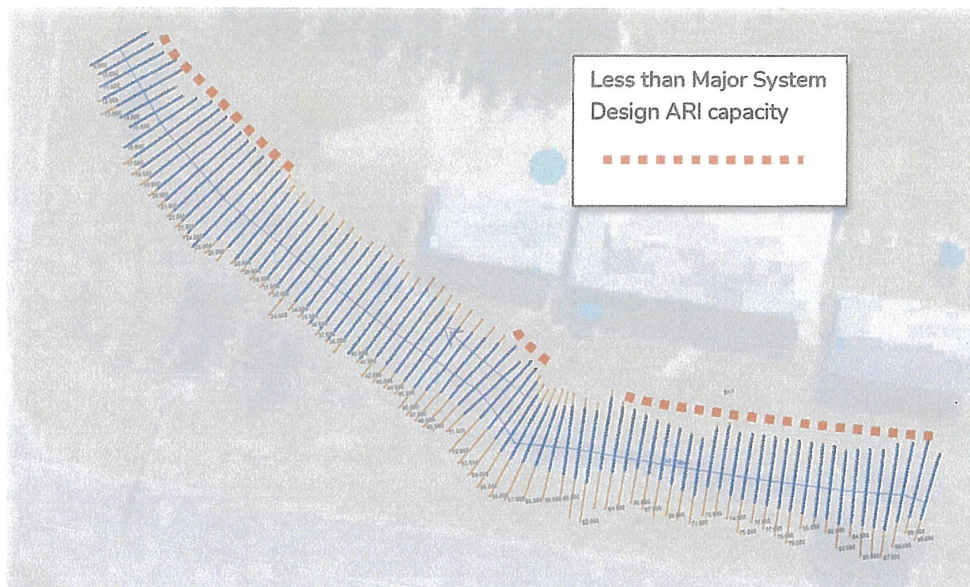


Figure 6 - HECRAS Schematic Q50

The existing channel has been considered in three sections:

1. Lyndhurst Lane verge
2. Easement A
3. Warner Street verge

Section 1 – Lyndhurst Lane verge



Figure 7 - Lyndhurst Lane verge

This section is fully within the road reserve from CH 0 to CH9 approximately.

At the fence-line the lower section of chicken wire has been replaced by 50mm square mesh minimize flow restriction.

The flows in this section were not modelled as they are likely to be quite shallow and the channel becomes less defined.

The outlet channel crosses the verge from the fence-line to a shaped depression in the back of the kerb.

In wet weather this outlet allows flows to re-enter Lot 1 via the driveway as shown in the following client provided photo. The intensity of the storm when this occurred is not known.



Figure 8 - Flows re-entering Lot 1 via driveway. (Client supplied)

Section 2 – Easement A



Figure 9 – Easement A channel

This section is fully within Easement A from CH9 to CH49.

The profile shows some variation in invert level, and this was observed on site as water-logged boggy sections.

The grass in these sections was longer as it could not be efficiently mowed due to the ground conditions.

The HECRAS model indicates the limiting section of existing channel to be at CH17, as shown below. The maximum capacity at this point is $Q_2 = 377 \text{ L/s}$, with Major System Design ARI Q50 (961 L/s) unable to be contained from CH9 to CH25.

Between chainages CH25 and CH49, the channel has Major System Design ARI capacity.

Stormwater Report

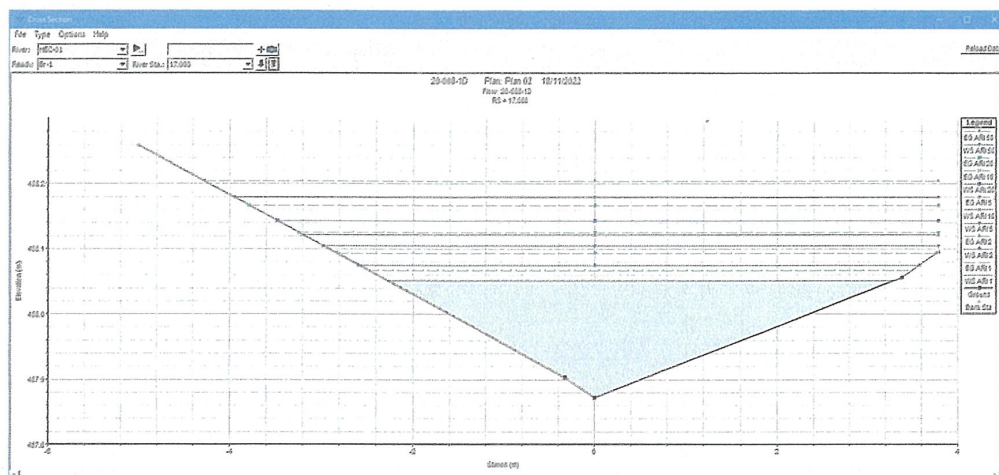


Figure 10 – Critical section CH17 (looking downstream)



Figure 11 - Easement A during an event. (Client supplied)

Section 3 – Warner Street verge

This section of grassed channel is fully within the road reserve from approximately CH49 to Ch90.

The outlet from the culvert has formed concrete curve. On the date of inspection there was a large amount of siltation in the channel as shown below.



Figure 12 - Culvert outlet siltation

The HECRAS model indicates the limiting section of existing channel to be at CH88, as shown below. The maximum capacity at this point is 200 L/s, which is less than Q1 (278 L/s).

Only between CH54 and CH64 the channel can contain the Major System Design ARI Flow.

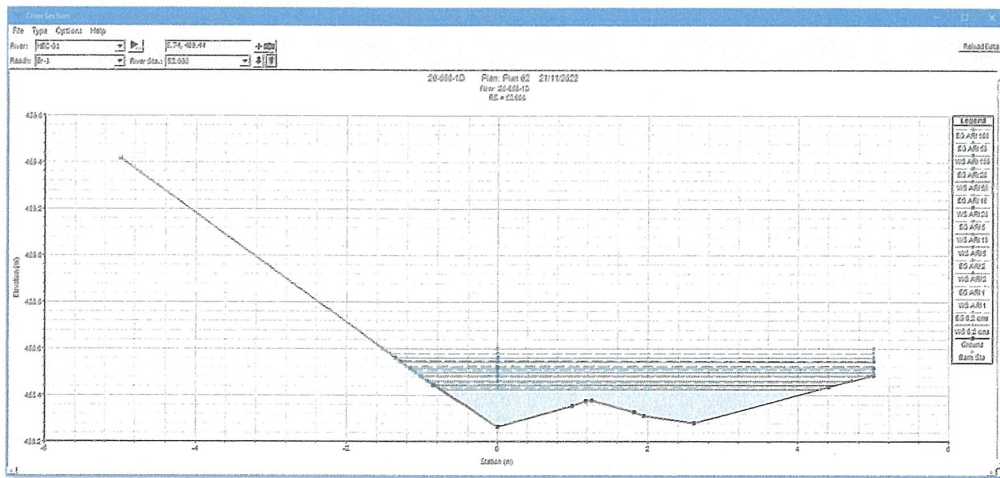


Figure 13 - Critical section CH52 (looking downstream)

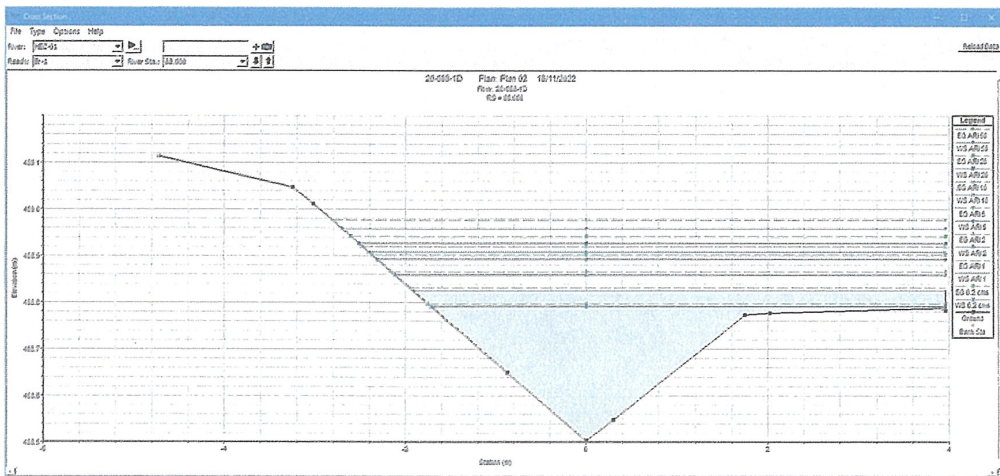


Figure 14 - Critical section CH88 (looking downstream)

Discussion

The modelling shows that some sections of the channel can convey the estimated Major System Design ARI flow of approximately 961 L/s.

This would lead to the belief the channel was originally designed and constructed in accordance with the design criteria of the time.

The effects of time, settlement, siltation may all have contributed to the degradation of hydraulic capacity and has varied the invert away from its original linear slope.

Periods of drought may have opened the soil structure resulting in the current sub-surface flows.

The easement is across private land and the aesthetics and maintainability of the infrastructure should be considered along with sustainability and financial inputs.

Restoring, and possibly improving, the invert gradient and channel cross sectional shape, could be achieved relatively simply.

Removal of breeding grounds for mosquitoes is a high priority in many areas particularly after the recent rain events. Restoration of free draining conditions should be achieved.

It is recommended that concrete invert solutions within Easement A should be avoided as they can increase velocity, through reduced roughness, and edge scour and can be unsightly and an impediment to mowing.

As an example, a grassed channel with the following cross-section at a 1% longitudinal slope would have a capacity of 976 L/s when 300mm deep.

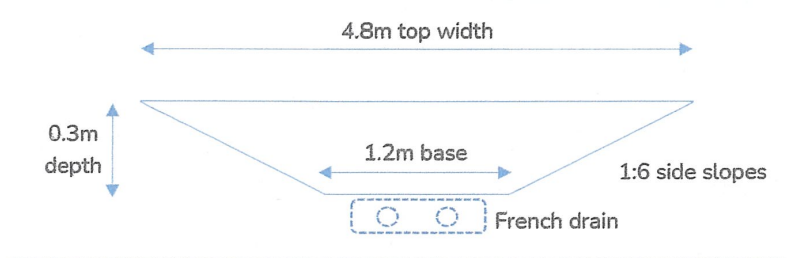


Figure 15 - Example cross section of grass-lined channel

It is generally accepted that landowners take responsibility for lawnmowing verges, and as in this case, easements, with Council being responsible for structural changes.

The landowner has suffered considerable costs because of repairs due to channel overtopping.

The Queensland Urban Drainage Manual 2016 introduced the test of 'no actionable nuisance' in relation to drainage discharges to other properties.

It is noted this test was not in QUDM when the infrastructure was installed.

Easement A is an agreement allowing Council to convey, at least, the Major System Design ARI within that easement.

A possible future solution for Council such as trunk drainage pipework through Easement A and down Lyndhurst Lane could alleviate the recurring nuisance to the landowner and their downstream neighbours. No planned works in this area have been published at this stage.

It is noted this section of Warner Road and Lyndhurst Lane is within a Trunk Transport Infrastructure Service Catchment. No Proposed works were listed nearby as of November 2022.

Reconstruction of the vertical alignment and/or intersections may be a future consideration for Councils Transport planning though nothing is published at this stage.

Recommendations

Consideration should be given to routine cleanout and reinstatement of culvert & channel to allow the landowner to maintain by mowing effectively and easily.

Consideration should be given to increasing the aperture size of the lower section of fence at each crossing of the channel to further reduce any chance of blockage.

Consideration should be given to installation of a 'French drain' beneath the channel base to facilitate drainage of waterlogged areas and mitigate sub-surface flows.

One or two slotted PVC pipes within a free draining gravel surround at minimum grade could be piped across the Lyndhurst Lane verge to the kerb.

Consideration could be given to reprofiling the invert and restoring shape of each section, and returfing to increase capacity.

It is recommended that Council and the Client engage in constructive discussions to achieve a sustainable solution that is agreeable to all parties.

218 LYNDHURST LANE EASEMENT DRAINAGE WORKS

Kehoe Myers Engineering Report - 218 Lyndhurst Lane

Meeting Date: 18 September 2024

Attachment No: 2



Kehoe
Myers

ENGINEERING REPORT
218 LYNDHURST LANE ROSENTHAL HEIGHTS QLD

MONDAY, JANUARY 16, 2023 | PROJECT NO. S2223002-213

INTRODUCTION

ADDRESSED TO: Suncorp
Level 23, 80 Ann Street,
Brisbane, QLD 4000

We advise that our inspection was undertaken on 5/12/2022 by our Structural Engineer, Grant [REDACTED].

The findings in this report are limited to:

- The commissioned scope of inspections;
- Areas of general access within and surrounding the structure. Some areas of the structure may have been concealed or direct access not possible and thus not inspected; and
- Visible structural elements that were inspected in accordance with the report scope.

This report does not address items that are of a non-structural nature as these matters may be more appropriately addressed by an Architect, Building Inspector, Building Contractor, Insurance Assessor, Occupational Hygienist or Pest Controller.

No liability is inferred in relation to elements not inspected or reported on nor on any future status of those elements.

In our opinion, any structural work outlined in this report constitutes repair work only and should not affect the overall structural integrity of the building in its original state when it was constructed. We assume that the original construction was built and approved in accordance with the relevant Local and State Government Regulations of the time.

This report does not attempt to upgrade and/or ensure that the undamaged structural elements comply with current Regulation requirements.

We trust this report meets your requirements at this stage. Please contact our office if any further information is required.

Kind regards
Grant [REDACTED]
Director
Kehoe Myers Consulting Engineers

Version	Date	Authorized
1	16/01/2023	Grant [REDACTED] BEng, CPEng, RPEQ, MIEAust

PROPERTY AND CLAIM SUMMARY

PROPERTY ADDRESS: 218 Lyndhurst Lane Rosenthal Heights Qld
CLAIM NUMBER: H035367879
DATE OF INSPECTION: 9/12/2022

PROPERTY DESCRIPTION

Type of Construction: Single Level, High Set
Suspended Timber Floor on Steel Stumps
Timber Weatherboard clad External Walls
Plasterboard Lined Internal Walls
Plasterboard Ceiling Lining
Steel Roof Sheeting

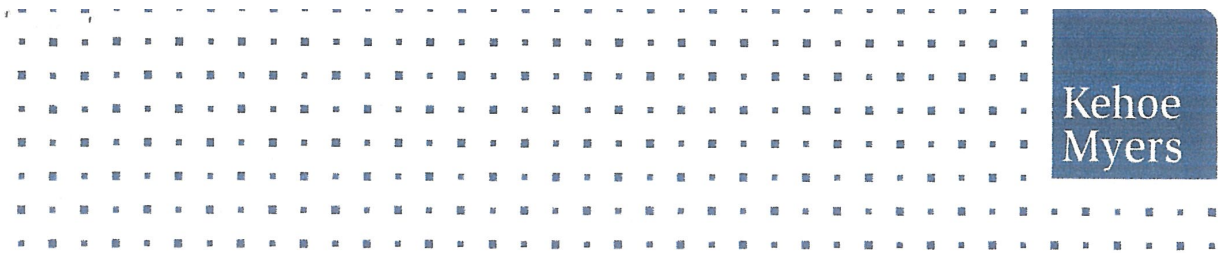
Approx. Year of Construction: 2000

Approx. Size of Building: 22 metres width x 12 metres length

Site Description: Sloping towards the North

Hazardous Materials: Asbestos No
Lead No

Scope of Works: Inspect and report on the existing house including potential external damage to the property.



INSPECTION FINDINGS

We visually inspected the inside and outside of the house including carrying out a floor level survey. No invasive exploration, non-destructive or destructive testing has been carried out by us. Refer to Appendix A and B for the Site Visit Summary Plan and Reduced Floor Level Survey Plan respectively.

The findings listed below relate to the report scope:

Homeowner Report

1. The homeowner reported the following to us while we were onsite:
 - The owners have lived at the house for 6 years and the house is approx. 21 years old.
 - During large storm events runoff from Warner street in the South-Eastern corner of the property overtops the drainage swale and runs under the house.
 - The drainage swale has insufficient falls and ponds water for extended periods following rain events.
 - To help stormwater runoff drainage and mitigate pooling the owner has dug drainage pits and installed pumps under the house to remove as much water as possible.
 - There are several cracks in the internal plasterboard walls have been first noticed over the last 2 years.

Existing House and Site Description

2. The house is a single level raised timber framed building with steel stumps. The external walls are clad with weatherboards and the internal walls and ceilings are lined with plasterboard.
3. The house and surrounding landscaping are in good condition and appear to be well maintained, refer photos 1-7.
4. The block falls from the North towards the South by approx. with approx. 3m of level difference.

External - House

5. The sub-floor space to the house is open and can be accessed on all sides, refer photos 8-12. The supporting columns to the house floor are steel with adjustable caps to the floor bearer, they are cast-in a concrete pier footing. There is no visible evidence of scour to the footings from stormwater runoff.
6. The ground to the sub-floor generally appeared to be dry at the time of our inspection. The falls of the site generally enable overland flow to pass through the sub-floor space.
7. There are no visible cracks or damage to the main house externally.

External – Drainage

8. There is a drainage easement that runs through the South-Western corner of the block, refer Appendix A for layout. This easement has a swale that runs diagonally through the block which is intended to divert water to Lyndhurst Lane. The swale collects water from a culvert in Warner St. and runs in the footpath before entering the easement, refer photos 13-24.
9. The swale does not appear to have consist falls in the easement and would appear to pond water (as described by the owner).
10. The swale embankment height and change in direction at the street culvert appear that it would be likely overtopped (as described by the owner) in a large storm event.



Internal

11. There are hairline cracks in the internal plasterboard walls in the lounge room/kitchen area on the Eastern/Central part of the house, refer photos 25-28.
12. There are no cracks of damage to the internal ceilings and the house is generally in good condition internally.

Floor Level Survey

13. We carried out a floor level survey across the house. Refer to Appendix B for the Reduced Floor Level Survey plan. We note the following from the survey:
 - Lowest point is in the South-Eastern corner of the house in the office area.
 - Highest point is in the centre of the house.
 - Maximum vertical difference in floor level is up to 36 mm.
 - Generally, the floor levels are lower towards the external walls and generally worst towards the Eastern side of the house.

Historical Photos From Owner

14. The homeowner provided several photos which we note the following:
 - Water ponding in the swale near the culvert, in the footpath and in the easement, refer photos 29-32.
 - Water ponding under the house following a storm event, refer photo 33.
 - A surveyed long section of the swale, photo 34. Noting the blue line as the surveyed levels and the red as the likely design intent to maintain consistent falls.



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23



Photo 24



Photo 25

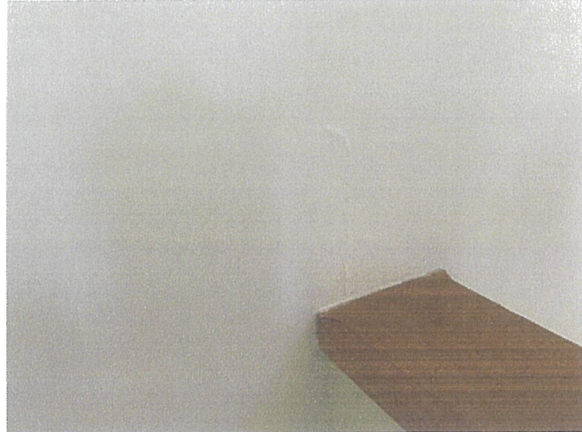


Photo 26



Photo 27



Photo 28



Photo 29



Photo 30



Photo 31



Photo 32



Photo 33

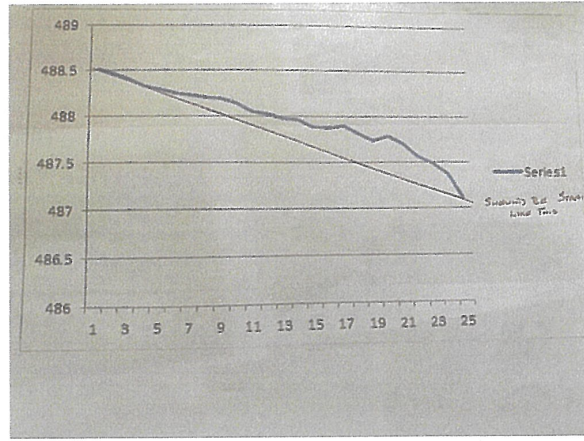
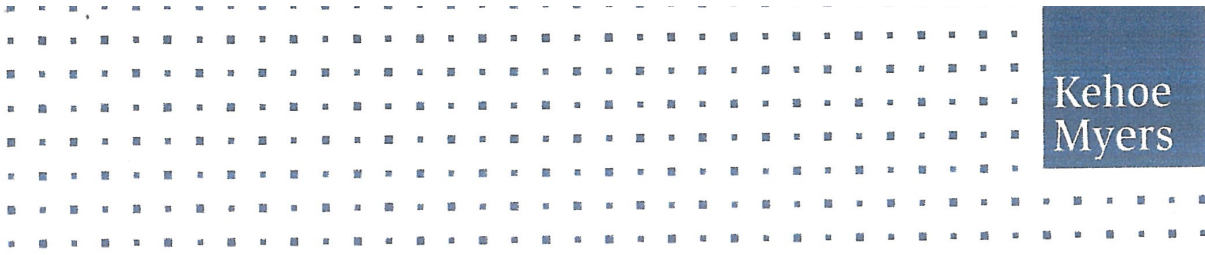


Photo 34



CONCLUSIONS AND RECOMMENDATIONS

The conclusion from our Structural Engineering investigation is that the earth drainage swales constructed to the Southern boundary and through the stormwater easement are not currently functioning as we believe were originally intended.

Stormwater runoff during large rainfall events is overtopping the embankment adjacent to the drainage culvert in the South-Eastern corner of the house and discharging towards the main house. This is due to the lack of embankment height and change in direction of flow.

The swales do not appear to be constructed with uniform adequate falls and there are areas where ponding of water is occurring.

The drainage installed to the sub-floor area of the house appears to be functioning to minimise the water being held in this area.

The damage observed to the house is currently limited to the hairline cracks noted to the internal plasterboard walls. There was no other damage apparent to the house during our inspection.

We have no information on the original footing construction detail or Geotechnical information for the site and therefore can not comment on the suitability of this to deal with potential ground movement.

The internal damage to the plasterboard walls are non-structural and currently only of aesthetic concern.

The levels in the house are generally lower on the Eastern side. This may be the result of heaving of the soil towards the centre of the house as the natural ground shrinks and swells at a differential rate to the edge due to it drying out faster. This Abnormal ground moisture may cause further movement of the building in the future and additional cracking of wall and/or ceiling linings to occur.

DISCLAIMER

The findings in this report are limited to areas of general access within and surrounding the structure. Some areas of the structure may have been concealed or direct access not possible and thus not inspected.

This report is specifically limited to the visible structural elements that were inspected in accordance with the report scope.

This report does not address items that are of a non-structural nature as these matters may be more appropriately addressed by an Architect, Building Inspector, Building Contractor, Insurance Assessor, Occupational Hygienist or Pest Controller.

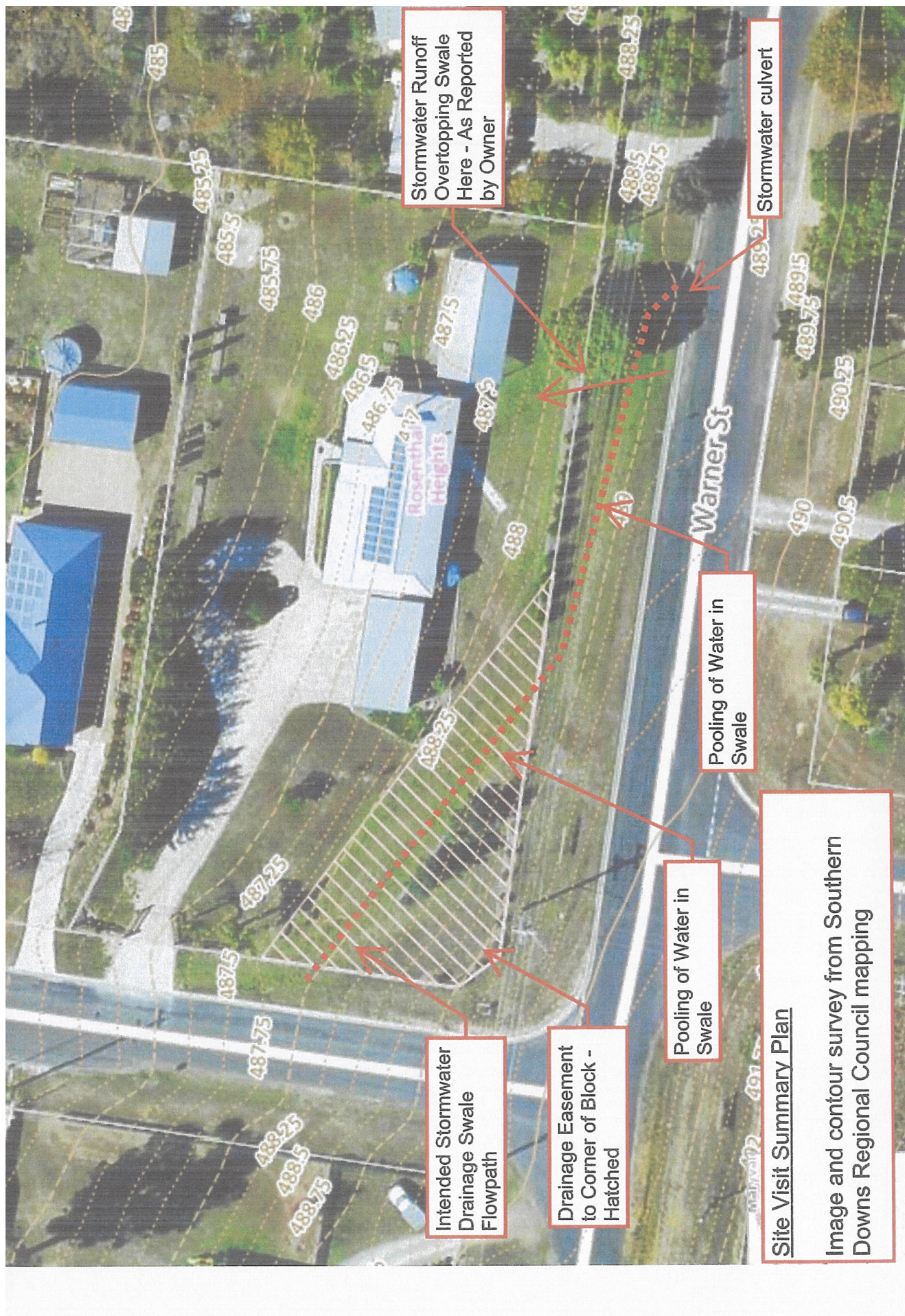
No liability is inferred in relation to the elements not inspected or reported on nor on any future status of those elements.

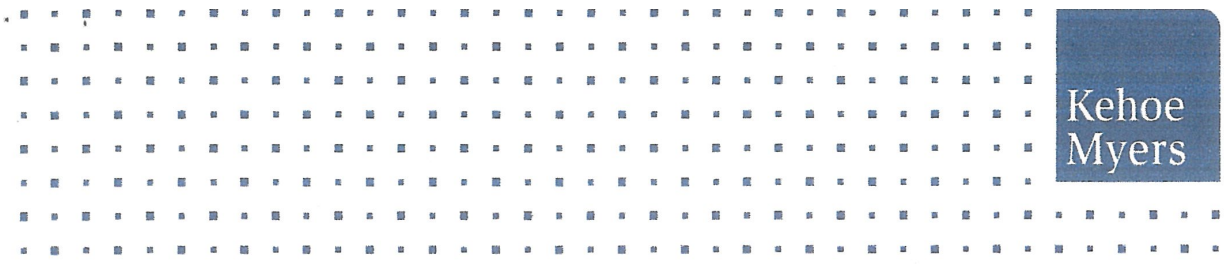
In our opinion, any structural work outlined in this report constitutes repair work only and should not affect the overall structural integrity of the building in its original state when it was constructed. We assume that the original construction was built and approved in accordance with the relevant Local and State Government Regulations of the time.

This report does not attempt to upgrade and/or ensure that the undamaged structural elements comply with current Regulation requirements.



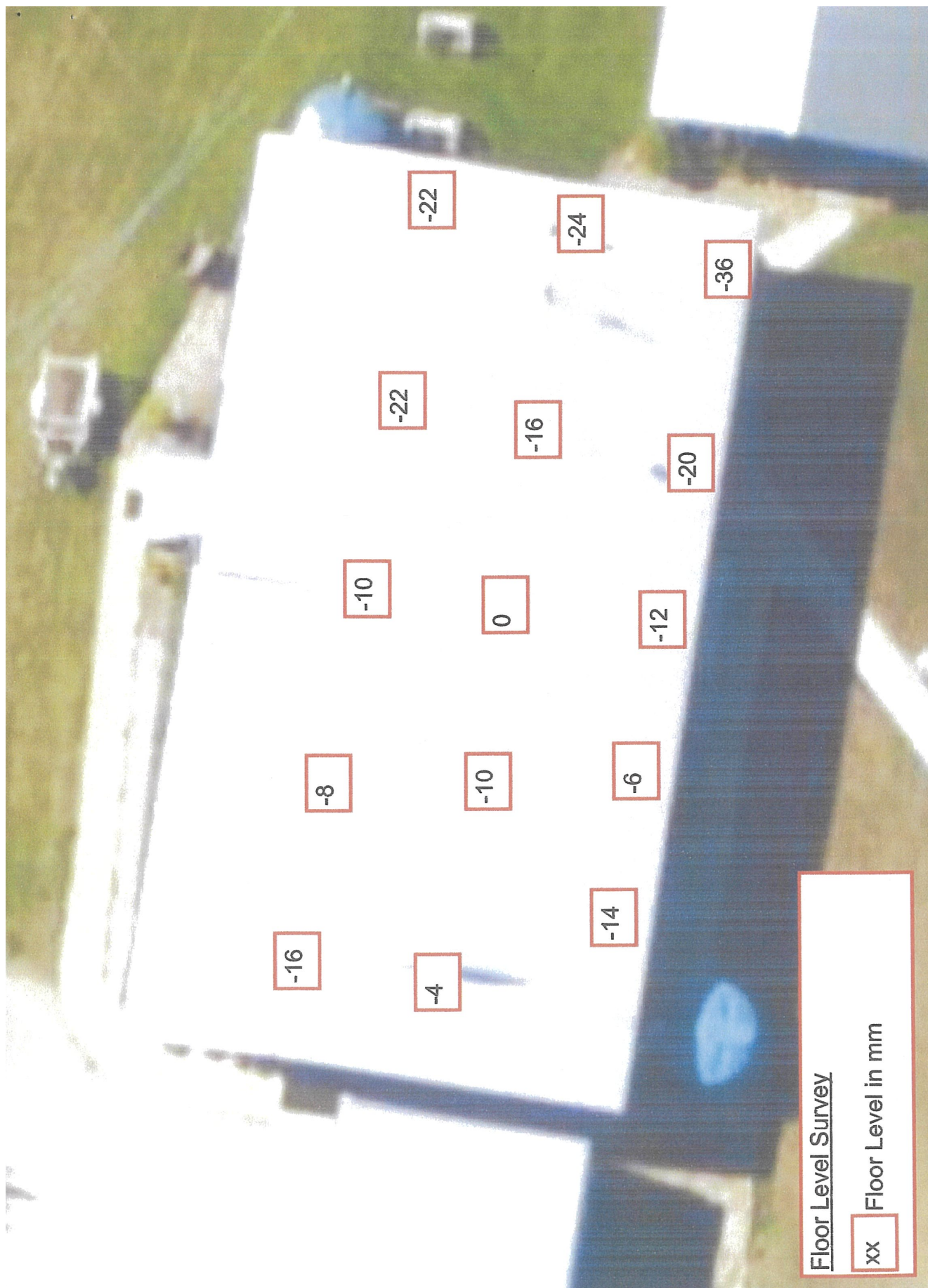
APPENDIX A – SITE VISIT SUMMARY PLAN





Kehoe
Myers

APPENDIX B – FLOOR LEVEL SURVEY PLAN



ENVIRONMENTAL SUSTAINABILITY STRATEGY ACTION PLAN REVIEW 2023-2024

SDRC Environmental Sustainability Strategy Action Plan 2023-2024 Review

Meeting Date: 18 September 2024

Attachment No: 1

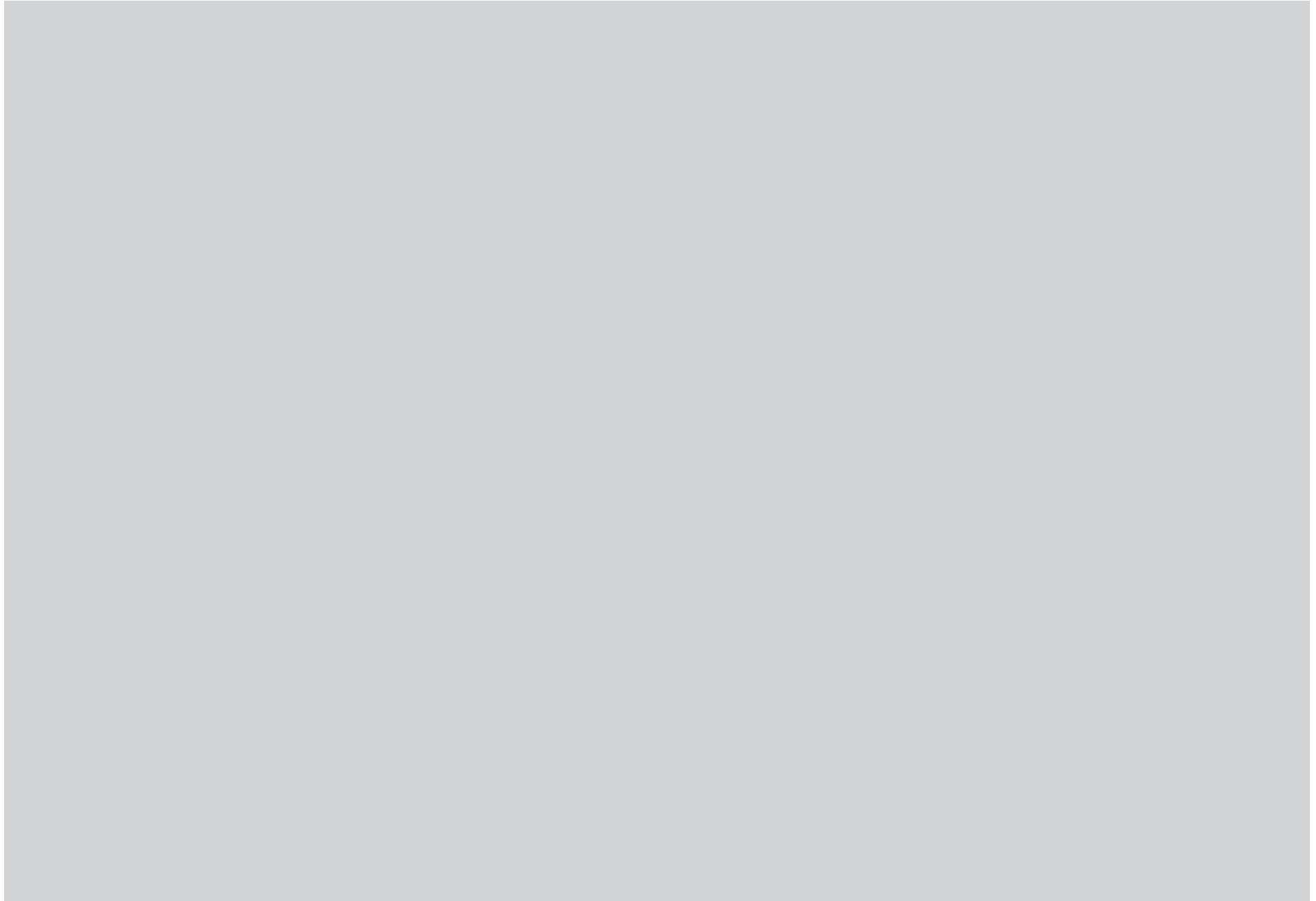
SOUTHERN DOWNS **ENVIRONMENTAL SUSTAINABILITY STRATEGY** ACTION PLAN

**2021
2031**



REVIEW OF ACTION PLAN 2023-2024





Contents

HOW TO READ THIS ACTION PLAN	3
ACTIONS TO VALUE WATER	4
ACTIONS TO REDUCE OUR ENVIRONMENTAL FOOTPRINT	9
ACTIONS TO VALUE NATURE	16
ACTIONS TO BUILD ECONOMIC RESILIENCE	20

How to read this action plan

Our action plan clarifies the strategic directions and activities that Council, the community and project partners will aspire to implement over the next 10 years to improve the environmental sustainability of the Southern Downs region.

A key aspect of implementation is building on the networks and relationships we have with our community, the wider region and the State and Federal Government. In addition, as a Council, we continue to develop our internal capacity and skills to innovate and identify practical solutions to address our local environmental challenges.

The following table describes the headings for the action plan to address our focus area and strategic directions.

Actions	Green	Orange	Red	Update
Specific actions to be undertaken by Council and stakeholders. Actions and potential funding sources will be reviewed annually and will be subject to Council budgets and external funding opportunities.	Action completed; Or Ongoing every year	Part of action undertaken and completion expected within Action Plan timeframes	No planning or works undertaken; or The decision has been made to not undertake any works towards this action	What works has been done towards this action

Actions to value water

#	Action	Green	Orange	Red	Update
Strategy 1: Reduce Council's building assets and infrastructure potable water use					
1.1	Audit all council admin buildings and workshops to develop a program of replacement to water efficient fixtures including dual flush toilets.		✓		Water efficient fixtures including dual flush toilets are installed as part of maintenance and breakdown when required.
1.2	Include rain water tank installation as part of the replacement/refurbishment of council assets	✓			Leslie Dam ablution block construction included a rain water tank installation. The stored water has been plumbed in for use in the toilets.
1.3	Close the water loop at landfill sites by capturing untreated storm water for use in dust suppression, vegetation management on rehabilitation and dilution of landfill seepage. Review site storm water management plan for improvement opportunities.	✓			Planned and budgeted survey carried out in June. Engineer contracted to review the Storm water management plan as part of the new cell design in 2024/25 FY. On-ground works carried out to manage storm water onsite includes installation of two standpipes to utilise captured water for dust suppression, while an irrigation system is used to disperse clean water across the site when dams are full. This water is also used to dilute landfill seepage for dispersal through the irrigation system on site so no seepage leaves the site.
1.4	Integrate water saving and re-use initiatives into all new Council asset development including the Warwick Saleyards redevelopment. This includes principles such as improved rainfall capture to reduce the need for dust suppression and reducing potable water use.		✓		The Water Efficiency Management Plan Warwick Saleyards 25th March, 2019 aim is to continually improve water efficiency and identifies water saving actions in the short, medium and long term. A trial is planned for 2024/25 to reuse the waste water from site in a recycling project. Access to Class A recycled water for washdown in the Saleyards is installed. Leslie Dam ablution block construction included a rain water tank installation. The stored water has been plumbed in for use in the toilets and washbasin.

#	Action	Green	Orange	Red	Update
Strategy 2: Manage Councils' parks and gardens to be water efficient					
2.1	Develop a program to progressively install smart watering technology into Council's primary parks and gardens starting with the two demonstration sites.		✓		Plan has been developed for complete renewal of irrigation system in Leslie Park. This has been budgeted for in 2024/2025 FY.
2.2	Undertake and record base line soil analysis of all Council's parks and gardens to ensure plant choices are suitable to the medium they are planted in and watering program can be developed accordingly.		✓		Plans are being drawn up for the development of a garden beside the Yangan Road Depot training/lunch room. This will be used as a training/trial for the use of drought tolerant species, and species better used suited to the soils of the site. The development includes soil analysis, plant selection and suitable irrigation system based on the data collected.
Strategy 3: Acknowledge and encourage homes and businesses to be more efficient with town water use					
3.1	Continue to implement a water efficiency education and environmental awareness program targeted to industry and residents.	✓			Media releases during the FY have included Free Showerhead and Sprinkler upgrades. During the financial year 25 showerheads and 17 sprinklers were exchanged for more water efficient models under this program. Council has contacted all companies that have been required to have a Site Water Efficiency Management Plan in place reminding them of their obligations and asking what they have put in place to address the actions from the plan. Next step will see meetings with each user when necessary and data used to assess the program's effectiveness.
3.2	Encourage local businesses who are high water users to improve on-site water efficiency and wastewater recycling.	✓			All uses of more than 10ML/an of potable water were required to develop and get approval for a Site Water Efficiency Management Plan. Council has contacted all companies that had a Site Water Efficiency Management Plan in place reminding them of their obligations and

#	Action	Green	Orange	Red	Update
					asking what they have put in place to address the actions from the plan. FY 24/25 planned meetings with each user to assess their plans. As new businesses are identified as high-water users they will be contacted to develop plans for their water use, waste water re-use and efficiency measures.
3.3	Create water efficient garden demonstration sites to help raise awareness of local native plants and waterwise gardening practices.		✓		Plans are being drawn up by the Parks and Gardens team for the development of a garden beside the Yangan Road Depot training/lunch room. This will be used as a training/trial for the plant selection based on drought tolerance, soil suitability and longevity. It will also include a water efficient irrigation and soil moisture monitoring system. The information gained from this development will then be used for the planned water efficient garden demonstration site within a public space which has yet to be determined and for training for the Parks and Gardens staff.
3.4	Progress the installation of smart metering to remaining residences in the LGA (households and businesses) including Warwick, Yangan, Killarney and Allora, Pratten, Leyburn, Dalveen and Wallangarra.		✓		Stanthorpe completed, Warwick installation of water meters is approx .50% completed. Budget and plans in place for other towns with reticulated water in 2024/2025
Strategy 4: Facilitate the provision of stormwater, recycled water and grey water infrastructure for homes and businesses					
4.1	Extend the use of recycled water from Council's Warwick waste water facility to Morgan Park by obtaining tender submissions and planning for the planned works	✓			The pipe work for the extension of recycled water to Morgan Park is complete. Council is currently negotiating agreements in Morgan Park for access to that water. Agreements and connections will be undertaken in 24/25 FY.

#	Action	Green	Orange	Red	Update
Strategy 5: Promote local successes and experience in water use efficiencies in agriculture					
5.1	Work with the agricultural services sector to showcase a Stanthorpe irrigator's best practice agricultural application of recycled Class A water sourced from Council's waste water.			✓	The lease arrangements for the use of recycled waste water from Stanthorpe's Waste Water Treatment Plants are still under review and negotiation. Therefore, showcasing of best practice use of recycled water has been pushed out to 2024/2025 FY until the leases are finalised.
5.2	Continue to update Southern Downs Drought Resilience Plan 2018 to ensure it is a living document. Include current education programs on practical on-ground works for on-farm water saving, storage or recycling and where to access agricultural emergency drought relief and resilience assistance. Include a link on Council's website to promote to agriculture sector the Australian Government Water Programs and Initiatives.	✓			The SD Drought Resilience Plan 2018 has now been replaced by the SDRC Drought Management Plan 2022 which is managed by Water Services. The Council website has information on drought relief and links to State and Federal departments for more information for the agricultural sector on water use efficiency.
Strategy 6: Increase regional water security					
6.1	Support an education and promotion campaign regarding indirect potable reuse.	✓			15/02/2024 media release using technology in growing plants/crops

#	Action	Green	Orange	Red	Update
6.2	<p>Develop and implement a Water Security Strategy for the region to guide decision making for future drought and extreme events</p> <p>The Strategy will consider:</p> <ul style="list-style-type: none"> » Maintenance of environmental flows. » Housing and population growth projections. » Holistic water strategy incorporating town water, groundwater and recycled water. » Demand management and supply considerations including connections across the LGA and with the SEQ grid. » Opportunities for increasing water supplies and securing contingency sources. 		✓		<p>Council is currently reviewing and updating the externally developed SDRC Water Security Strategy 2019 to ensure it meets the current needs of the Southern Downs region and reflects the learnings from the recent drought. This review will also assess the document against the requirements of this action. It is expected the review will be completed in the first half of 24/25 FY. Once complete the strategy will become an internal document.</p>

Actions to reduce our environmental footprint

#	Action	Green	Orange	Red	Update
Strategy 7: Look for opportunities to participate in appropriate local government activities that reduce Council's footprint					
7.1	Review the following major plans to reduce Council's environmental footprint- SDRC Invasive Pests Strategic Plan 2021-2024 SDRC 2023 – 24 Operation Plan Waste Reduction and Recycling plan 2021-2024		✓		Operational plan reviewed for actions and outcomes to reduce Council's environmental footprint in 2023. The Invasive Pest MP and the Water Reduction and Recycling Plans are to be re-developed in 2024/2025 FY.
7.2	Contribute to sustainability education in the staff induction process and through tool box talks such as waste recycling.	✓			Delivered 6 Corporate inductions to new staff members on Environmental awareness. October 2023 SCOOP article Energy saving in the SDRC workplaces. Recycle education for new Youth Council carried out in June 2024.
7.3	Develop and deliver training for staff involved in planning of ground disturbance in any road side work.	✓			Roadside Disturbance training delivered in August 2023 to work's supervisors. Glove box guides produced for Supervisors work vehicles for use in all ground disturbance activities.
7.4	Set up and orchestrate an audit process for Council workshops and depots for activities that are, or have potential to create, offsite environmental harm. Mitigate the environmental harm and cease or alter the activity to prevent future harm.			✓	Budget request for installation/update of oil separation system at the Yangan Rd Depot in the 2024/2025 budget (not approved). This was to include a change in the practice for oil separation and improvement in ground contamination at the site. Change to drainage and use of the historically used emulsion pit at the Yangan Rd Depot has seen a reduction in the movement of hydrocarbons into the downstream dams. The system still needs more work to reduce offsite impacts. Budget has been applied for to include a closed water recycling system at the Yangan Depot.

#	Action	Green	Orange	Red	Update
7.5	Conduct energy and water audits with each department for savings within their area		✓		The assessment report recommended the installation and use of solar on the Council assets with the highest energy usage. The Aus Govt Community Energy Upgrades Fund grant application was submitted in May 2024. The grant application included solar installation on Warwick Water Treatment Plant and Warwick Waste Water Treatment Plant and solar lighting (with inbuilt batteries) for along the Condamine River Walk in Warwick. Results notified in September 2024. Council has approved a solar budget for the Council's contribution to that grant should it be approved. If the grant application is not successful, the budgeted amount will be used for a smaller solar project yet to be determined.
7.6	Continue to review and implement appropriate recommendations identified in the SDRC Climate Change Adaptation Governance Assessment (2018) report.		✓		The assessment report recommended the installation and use of solar on the Council assets with the highest energy usage. The Aus Govt Community Energy Upgrades Fund grant application was submitted in May 2024. The grant application included solar installation on Warwick Water Treatment Plant and Warwick Waste Water Treatment Plant and solar lighting (with inbuilt batteries) for along the Condamine River Walk in Warwick. Results notified in September 2024. Council has approved a solar budget for the Council's contribution to that grant should it be approved. If the grant application is not successful, the budgeted amount will be used for a smaller solar project yet to be determined.
7.7	Continue to support the program with Ergon Energy to replace Ergon owned street lighting with LED bulbs.		✓		Progressive installation is still occurring to replace the Ergon owed street lighting with LED bulbs. An application for the Aus Govt Community Energy Upgrades Fund grant was applied for in May 2024 to replace the grid powered Condamine River Walk with removeable (in case of flood) solar lighting with in-built batteries

#	Action	Green	Orange	Red	Update
7.8	Continue to monitor energy usage on Council assets with the additional aim to investigate what assets could benefit from sensor lighting or solar street lighting.			✓	Aus Govt Community Energy Upgrade Fund grant applied for in May 2024. Application included removable solar lighting with inbuilt battery component for along the Condamine River Walk. These are sensor lights as well. Results notified in September 2024. If a second round of funding becomes available the plan is for installation of similar infrastructure on Quart Pot Creek.
7.9	Identify sites/assets to roll out solar program with funding allocated in budget	✓			Tender for the solar supply and installation on the Yangan Depot administration buildings has been accepted by a local supply company. Not started by end of FY - expected start date 21 July 2024. Warwick waste facility 17.5kW solar infrastructure was installed and paid for by end of 23/24 FY. To be connected in July 2024.
7.10	Introduce into Pulse - footprint of energy usage, initiatives to reduce use and then show monthly updates to gain ownership of Council footprint within staff.		✓		Some data analysis has been carried out for the Aus Govt Community Energy Upgrades Fund grant application, however this has not been used to develop a 'footprint of Council energy use'. The new Clarity dashboard that has just been introduced may be able to present this information. Investigations into this will be carried out in 2024/2025 FY.
7.11	Develop a Green Building Master Plan to ensure new Council assets are designed and built to maximise energy efficiency, increase renewable energy and reduce urban heat impacts.			✓	SDRC Strategic Asset Management Plan Appendix A shows Building master plan will be complete by December 2024. This master plan will incorporate the principles of green building and emissions reduction through effective use of available sustainable building materials.

#	Action	Green	Orange	Red	Update
Strategy 8: Reduce greenhouse emissions from council vehicles					
8.1	Improve the tracking ability by installing GPS units in vehicles to improve fleet performance, reduce cost and increase productivity/efficiency.			✓	Review of the costing and evaluation of commercial solutions to meet Council requirement for tracking and performance of Council vehicles is currently being undertaken. Funding for full replacement and upgrade of Council's fleet GPS capability has been withdrawn, pending renewed business case for investment.
8.2	Increase the ratio of low emissions vehicles to full fuel vehicles when replacing existing fleet stock.			✓	No additional low emissions vehicles have been purchased this FY. Two were purchased in the 2022/2023 FY and are performing well with an approximated halving of fuel usage for each vehicle.
8.3	Incorporate Sustainable Procurement into the procurement process on all council vehicle purchases. This includes the current minimum standard for new light vehicles in Australia is ADR 79/04 which is based on Euro 5 standards. The current minimum standard for new heavy vehicles is ADR 80/03 which is based on Euro V standards.			✓	As the Australian standards for emissions have been recently changed, investigations into the current standards will be carried out and included in the review of the procurement process to be carried out in 2024/2025 FY.
8.4	Include in field trials low emissions fleet as part of future Council works program.			✓	Assessment of new technologies and commercial options for low emissions vehicles is currently being reviewed such as EV utes. As the technologies and emissions regulations are currently changing it was decided to research options before any purchases were made.
8.5	Review and update procurement documents to consider environmentally friendly component which may include low emissions.			✓	here is an external review of procurement documents planned for July 2024 and an overall internal procurement review in 2024/25 FY.
Strategy 9: Create cooler streets and neighbourhoods					

#	Action	Green	Orange	Red	Update
9.1	Develop a plan for an urban planting program to increase tree canopy within major township centres and neighbourhoods.	✓			Open Space, Sport and Recreation Master Plan went out for public consultation - Closed on 21st June 2024. Program has been developed to replace some street trees and plant additional trees in the urban areas of the towns and communities
9.2	Investigate site for the installation of already purchased sustainable park equipment. Integrate with one of the demonstration garden sites.			✓	Investigations continue n context of other priorities and available resources.
9.3	Incorporate the requirement in new developments to use low heat absorption materials and finishes into building controls within the Planning Scheme			✓	Submission to the new Planning Scheme includes this requirement however it will not impact Dwelling houses.
Strategy 10: Encourage our homes and businesses to be energy efficient					
10.1	Increase the sustainability of existing and new residential and commercial buildings through access to information and grants.			✓	There is room for improvement in this space. Currently Council notifies development applicants of any changes to the National Construction Code 2022 which sets out the requirements for the design and construction of a building in Australia, including its plumbing and drainage.
10.2	Facilitate access to energy efficiency grants and programs for residents and businesses.	✓			20/02/2024 shared facebook page of Aus Govt Dept of Climate Change, Energy, the Environment and Water Energy Efficiency Grants for small and medium businesses. Shared DAFF Fb page May 2024 on small grants of up to \$100,000 for projects that will support farmers and land holders to adopt sustainable agriculture best practices and to facilitate and implement practice change.
10.3	Promote through Council owned media channels an update on completed actions from the ESS Action Plan since the 2021-2031 introduction.	✓			The two-year review was undertaken in July 2023 for the previous two years actions. This was delivered to Council, adopted and then uploaded to the Council website with the new 2023/24 action plan. The review

#	Action	Green	Orange	Red	Update
					was also sent via email to those organisations that requested an update on the strategy and actions.
10.4	Investigate the setup of Council delivered community sustainability grants	✓			Meetings were held to determine the potential and outline of the \$30,000 sustainability grant program. The program was included in the budget submission but was declined. The program will therefore be deferred until 2025/26 FY.
Strategy 11: Increase provision of renewable energy for the region and community					
11.1	Advocate for and promote renewable and low carbon energy options for residents and industry.		✓		New draft Planning Scheme is supportive of renewable development. In urban residential areas, alternative electricity use is difficult due to the infrastructure requirement for grid power connection for whole of development site. Will investigate who regulates this requirement.
Strategy 12: Increase availability and usability of active transport (walking and cycling)					
12.1	Develop a plan based on conducted audits on existing footpaths and cycle ways. Audit included missing links and slips, trips and falls from defects plus level of use based on customer requests and complaints.	✓			Walking network plan was completed in 2023. Footpath audit carried out in 2021. Works program was updated from this audit as well as the SD walking plan for Warwick and Stanthorpe and the desktop assessment of footpath missing links.
Strategy 13: Reduce reliance on and emissions from private vehicles					
13.1	Promote Qld Walks Network in Warwick and Stanthorpe	✓			SD Walking Network plan for Warwick and Stanthorpe Completed 2023
13.2	Continue to promote alternative means of transport such as the use of the bus network as a means of moving around and within our towns to reduce reliance on private vehicles.			✓	No additional promotion carried out since social media page on "Leave your car at home" in January 2023

#	Action	Green	Orange	Red	Update
Strategy 14: Promote initiatives that encourage lower carbon agricultural practices					
14.1	Continue to promote programs which increase the amount of carbon stored in soil and vegetation and reduces the environmental footprint of farming systems.	✓			Social media share of Dep of Ag, Fisheries & Forestry fB post of Climate-Smart Agricultural Program - Small Grants round - May 2024.

Actions to value nature

#	Action	Green	Orange	Red	Update
Strategy 15: Assist in identifying and protecting priority species, communities and habitat					
15.1	Promote the development of a biodiversity assets and corridors strategy to identify and map threatened species, vegetation communities, high value conservation areas and habitat on public and private lands	✓			Draft SD Biodiversity Assets and Corridors Strategy is completed and ready for discussion with SLT. Discussions have been had with Southern Qld Landscapes on potential to map koala and spotted-tail quoll habitat and sightings across the region. Awaiting on grant funding opportunities to instigate this program.
15.2	Implement the Recreational Open Space Strategy and include biodiversity assets and corridors. Prepare management plans for Council reserves and other Council lands.	✓			SD Management plan for Council Reserves was completed and adopted by Council 22nd November 2023 after public consultation period. The plan was uploaded onto Council website in December 2023. The SD Open Space, Sport and Recreation Master Plan went out for public consultation and closed 21st June 2024.
Strategy 16: Encourage conservation protection and enhancement on private lands					
16.1	Promote voluntary conservation programs and initiatives that incentivise landholders to invest in sustainable land practices such as improving the landscape for biodiversity. Investigate Council's ability to contribute to the promotion of the voluntary nature conservation such as the Land for Wildlife program.		✓		Letter of support sent to CHLG for application for Qld Govt Natural Resources Recovery Program (NRRP) grants 20/02/2024

#	Action	Green	Orange	Red	Update
16.2	Continue to support community groups to protect wildlife and enhance habitat on private lands and to assist in biodiversity planning and management.	✓			Letter of support sent to CHLG for application for Qld Govt Natural Resources Recovery Program (NRRP) grants 20/02/2025
16.3	Implement high priority actions in the SRC Flying Fox Management Plan	✓			Flying-fox roost management grant project West Rd, Stanthorpe - ground work carried out March and June 2024. Planting of canopy species to enhance habitat values into the future completed at EoFY 2023/2024, however monitoring for a couple of months is still needed before final grant report is given.
16.4	Install interpretive signage in recreational areas starting with the recreational dam sites. Examples of signs to include - Don't feed native animals as there is potential for unnatural increase in species populations and unhealthy individual animals - Correct disposal of food scraps in closed bins to prevent animal access	✓			Signs installed 14th May 2024 at Storm King Dam and Connolly Dam recreational areas.
Strategy 17: Advocate for the protection of the ecological and cultural values of local landscapes and waterways					
17.1	Seek funding for a Water Sensitive Southern Downs Strategy which includes: » mapping major waterways, wetlands and refugia (chains of waterholes) and riparian vegetation » mapping of cultural waterway assessments » identifying major point and diffuse pollution sources » providing green infrastructure for stormwater control and treatment including bioswales, detention basins, stormwater flow diffusers and roadside plantings			✓	

#	Action	Green	Orange	Red	Update
	» identifying stormwater planning scheme controls and design guidelines for new builds, sediment controls and buffers around wetlands and waterways.				
17.2	Work with local indigenous groups to capture and incorporate traditional and cultural knowledge history.		✓		Waringhehn Corporation requested support for Indigenous Ranger Program grant application. Letter from Council supporting the program in principle was given. Any further agreements will need determination on who is responsible for what and what limitations are on each reserve. Attended Githabul Knowledge Sharing Day 27th May 2024.
17.3	Review Council's stormwater quality improvement initiatives including the effectiveness of the newly developed road drainage maintenance program.	✓			Program started 22/23 and is ongoing. Quality improvement initiatives on sealed road drainage for rural areas is part of this program. The SD Soil Conservation and Road Network Strategy is completed and awaiting adoption by Council. A motion has been adopted by Council that is to go to LGAQ conference in October 2024 to lobby the State Government to review the <i>Soil Conservation Act 1986</i> . The lack of soil conservation initiatives and regulation managed by the State govt has led to an increase in sediment damage on the local road network.
Strategy 18: Manage invasive species and other threats to biodiversity as legislated					
18.1	Work with partners to evaluate and manage the impact of long-term drought on ecological communities and significant trees.	✓			Local Law written to assess and protect significant trees including endangered species and European Pioneer culturally significant trees - to go to Local Law review. Work with the Project Officer (Heritage) to identify European culturally significant trees. The Biodiversity Planning assessment of Brigalow Belt completed by State Govt. This includes a large portion

#	Action	Green	Orange	Red	Update
					of the SD region. SQL received funding to work with Traprock landholders to increase ground coverage.
18.2	Review and revise the Invasive Pest Management Plan.			✓	Plan is due to be re-developed/updated in 2024/2025
18.3	Develop a plan to retrofit a weed washdown facility at the Warwick Saleyard truckwash.			✓	This will not happen due to costs and no support from Council or SLT. No weed washdown facilities in the Southern Downs except for the Saleyards truck wash (not built for weed management) and the privately owned Soapy's Car wash in Warwick.
Strategy 19: Lobby for sustainable fire management that protects lives, property and biodiversity					
19.1	Liaise with emergency management regarding controlled burns to support improved biodiversity outcomes on public and private lands.	✓			Allora Mountain controlled burn of grassland area was carried out in 23/24 FY by Qld Fire Service with the permission of Council who are the trustees.
19.2	Incorporate fire management considerations when developing management plans for Council owned land and reserves.	✓			Management plan has been developed for Mt Marlay and a draft Everest Road Reserve Management plan has been developed. SDRC Land Management Plan for Council Reserves is available to the public on the Council Website. Community input was invited for the completion of this document. It was adopted by council in December 2023 and contains a section on fire management.
19.3	Support initiatives that improve understanding of the role and value of burning for biodiversity on private landholdings including the value of traditional fire management.	✓			Attended Githabul Knowledge Sharing Day 27th May 2024 which involved cultural burn demonstration. June 8th 2024 workshop on Property Fire Management Planning is being held by Healthy Land and Water in Stanthorpe. Promoted amongst staff.

Actions to build economic resilience

#	Action	Green	Orange	Red	Update
Strategy 20: Increase local and regional connectivity					
20.1	Continue to monitor the Smart Cities Plan web site for grant funding opportunities that Council could utilise for Smart City Initiatives and projects.	✓			Website will continue to be monitored for grant opportunities
20.2	Advocate for DTMR to identify future transit corridors, to enable Council to identify potential heavy industry hubs (for example: storage and transit centres) and associated areas in the Planning Scheme.			✓	The process of identification future transit corridors by DTMR is ongoing. Advocacy continues.
20.3	Identify the expected growth and demand for further transport infrastructure links and to build on the existing links in the region. To support this expected demand develop a Regional Transport Strategy encompassing Road, Air and Rail.			✓	New Local Govt Infrastructure Plan is being developed. Schedule of Works will incorporate trunk roads works for the next 10 years. No Regional Transport Strategy has been developed.
Strategy 21: Encourage sustainable development and tourism					
21.1	Encourage nature based and eco-tourism.		✓		Action plan has been developed to meet the outcomes of the SDRC Economic Development strategy. Meetings planned for 25th July for Tourism Investment Attraction prospectus at the Qld College of Wine Tourism.
21.2	Investigate opportunities to support local Aboriginal employment and tourism opportunities as a result of the Black Coffee Networking Event held in Warwick.	✓			Proactive networking has been happening since the Black Coffee event. The SDRC Workforce Strategy has been developed which is inclusive of First Nations peoples and diversity employment. This will be implemented in 24/25 FY.

#	Action	Green	Orange	Red	Update
21.3	Promote initiatives and identify funding to assist small businesses to incorporate environmentally sound processes and deliver on sustainability outcomes.	✓			20/02/2024 shared facebook page of Aus Govt Dept of Climate Change, Energy, the Environment and Water Energy Efficiency Grants for small and medium businesses. Shared DAFF Fb page May 2024 on small grants of up to \$100,000 for projects that will support farmers and land holders to adopt sustainable agriculture best practices and to facilitate and implement practice change. Facebook post 'Get better horticultural results by working smarter not harder' shared 15th February 2024.
Strategy 22: Encourage sustainable development of townships					
22.1	Support, encourage and facilitate green infrastructure development.		✓		New draft Planning Scheme is supportive for green infrastructure development.
22.2	Continue to engage the community, business and industry on the benefits of building sustainably; waste management and sustainable purchasing opportunities	✓			Working with waste department on the plastic pyrolysis project. Regional Economy Future Fund (REFF) grant of \$350,000, working with external providers to reduce plastic waste from farms and produce useful by-products (through technology such as plastics pyrolysis) for both landfill waste sites has been received.
22.3	Develop a guide promoting building sustainably to be made available with applications for building approvals and generally available to residents on the Council's website.		✓		Developed document of building with and retro fitting sustainable construction materials and components. Looking to see how this can be of use with information supplied to applicants.
23.1	Consider the promotion of a 'green' farm gate trail. This could be linked to other tourism ventures (cycle ways).	✓			SDRC Economic Development Strategy Action plan includes nature-based tourism which includes new and upgrades to the farm gate trail and the cycle and

#	Action	Green	Orange	Red	Update
					walking trails. Private investing and grant funding is part of this process.
Strategy 24: Reduce waste and encourage resource recovery					
24.1	Continue to promote programs and engage the community on waste management to avoid and reduce waste with local businesses.	✓			On-going education program with community and schools (sort it Sally) continues throughout the year. Waste promotion on SDRC e-News and Fb page regularly
24.2	Investigate extending the useful life of products council uses such as vehicles, computers and phones to improve Council's circular economy participation. Implement recycling of Council owned mobile phones once they reach end of useful life.	✓			Mobile phones are only replaced when no longer working. Mobile phones are recycled and this will continue. Extension of vehicles change over from 100,000 to 150,000 occurred last year and will continue.
24.3	Identify opportunities to support on-farm sustainable waste and recycling, particularly management of plastic materials.	✓			Australian Sunlight Group is contracted to recycle T-tape from Granite Belt horticultural growers. Council will advocate for a National Stewardship scheme for agriculture plastic waste in the region. Continue to seek funding opportunities for pilot recycle programs.
24.4	Encourage more waste separation in the waste facilities through signage and auditing. Investigate markets for waste to resource products to reduce waste to landfill volumes	✓			Current waste separation programs include recycling of small batteries and steel components from mattresses; the paint back program as well as the Annual waste audit has been extended from kerb side collection to waste facilities. Demonstration trial and information by SQNNSW Innovation Hub of Pyrolysis machine at Stanthorpe waste facility December 2023
24.5	Investigate waste minimisation projects across Council.	✓			Small battery recycling introduced into administration buildings. Improved steel recycling at depot has resulted in increased recycling. Additional recycling

#	Action	Green	Orange	Red	Update
					bins have been requested in Council offices due to increase in volume.
24.6	Include waste messaging in fortnightly 'Your Southern Downs E-News'.	✓			Regular contribution to Your Southern Downs E-News by waste department on recycling, waste separation and other environmental issues.
Strategy 25: Encourage circular economy infrastructure and services					
25.1	Encourage reuse and restoration social venture organisations in the region, including provision of space at Council facilities.		✓		Investigating potential for repair café at waste facilities at Stanthorpe and Warwick are being investigated.
25.2	Identify and publicise circular economy champions in the community business awards when held.		✓		Investigations into circular economy champions are underway. Talks with the Business Commerce groups are part of this.
25.3	Work with regional partners to create a regional circular economy infrastructure hub.		✓		Drafts plans for treatment of organic waste to compost (keeping it out of landfill) in place for Stanthorpe. Funding of \$350,000 from REFF for introduction of the plastics pyrolysis for both landfill waste sites has been received.

ENVIRONMENTAL SUSTAINABILITY STRATEGY ACTION PLAN REVIEW 2023-2024

SDRC Environmental Sustainability Strategy Action Plan 2024-25

Meeting Date: 18 September 2024

Attachment No: 2

SOUTHERN DOWNS REGIONAL COUNCIL ENVIRONMENTAL SUSTAINABILITY STRATEGY ACTION PLAN 2024-2025						
#	Action	Timing	Role	Council Lead	Council second	Partners
ACTION TO VALUE WATER						
New action	On-going action from previous year action plan					
Strategy 1: Reduce Council's building assets and infrastructure potable water use						
1.1	Audit all council admin buildings and workshops to develop a program of replacement to water efficient fixtures including dual flush toilets.	Short	Lead	Parks & Operations	Environmental services	Tenants & building managers
1.2	Audit and encourage installation of water efficient fixtures to organisations that lease Council facilities.	Medium	Lead	Corporate Services		Tenant and building managers
1.4 (New)	Integrate water saving and re-use initiatives into all new Council asset development including the Warwick Saleyards redevelopment. This includes principles such as improved rainfall capture to reduce the need for dust suppression and reducing potable water use.	Medium		Corporate Services Water Services		
1.5	Undertake smart metering of council assets	short	Lead	Water Services		
1.6	Develop a comprehensive Water Efficiency Plan for current major facilities and infrastructure based on auditing of Council's assets for water leak detection, water consumption and water pressure.	Ongoing	Lead & Partner	Water Services	Parks & Operations	Federal Government - Smart Cities & Suburbs
Strategy 2: Manage Councils' parks and gardens to be water efficient						
2.1	Develop a program to progressively install smart watering technology into Council's primary parks and gardens starting with the two demonstration sites.	Short	Lead	Parks & Operations		Federal Government - Smart Cities & Suburbs
2.2	Undertake and record base line soil analysis of all Council's parks and gardens to ensure plant choices are suitable to the medium they are planted in and watering program can be developed accordingly.	Medium	Lead	Parks & Operations		
Strategy 3: Acknowledge and encourage homes and businesses to be more efficient with town water use						

3.1	Continue to implement a water efficiency education and environmental awareness program targeted to industry and residents.	Ongoing	Educate & promote	Water Services	Media & Communications	Chambers of Commerce/ local industry organisations
3.2	Encourage local businesses who are high water users to improve on-site water efficiency and wastewater recycling through the development of Site Water Management Plans	Short	Lead, Partner &	Water Services	Environmental Services	
3.3	Create water efficient garden demonstration sites to help raise awareness of local native plants and waterwise gardening practices.	Medium	Lead	Parks & Operations		
3.4	Progress the installation of smart metering to remaining residences in the LGA (households and businesses) including Warwick, Yangan, Killarney and Allora, Pratten, Leyburn, Dalveen and Wallangarra.	Short	Lead	Water Services	Environmental Services	State Government
3.5 (new)	part of the Planning Scheme review process. This includes requirement for water efficient fixtures and fittings and landscape guidelines including promotion of low water use/ drought tolerant plants.	Short	Lead	Planning & Development		
3.6 (new)	Opt into the Queensland Water Efficiency Development Code. This will require rainwater tanks for all new builds and major renovations to be plumbed into toilets and washing machines.	Short	Lead	Planning & Development		State Government
Strategy 4: Facilitate the provision of stormwater, recycled water and grey water infrastructure for homes and businesses						
4.1	Facilitate the use of recycled water from Council's Warwick waste water facility to Morgan Park by obtaining agreements with landholder.	Short	Partner	Water Services	Environmental Services	State & Federal Government
Strategy 5: Promote local successes and experience in water use efficiencies in agriculture						
5.1	Work with the agricultural services sector to showcase a Stanthorpe irrigator's best practice agricultural application of recycled Class A water sourced from Council's waste water.	Short	Lead, Educate & promote	Environmental Services	Community & Organisational Services	Agforce

5.2	Continue to update Southern Downs Drought Management Plan 2022 to ensure it is a living document. Include current education programs on practical on-ground works for on-farm water saving, storage or recycling and where to access agricultural emergency drought relief and resilience assistance. Include a link on Council's website to promote to agriculture sector the Australian Government Water	Short	Advocate, Partner & Promote	Community & Organisational Services		State and Federal Governments, Drought Interagency Group
Strategy 6: Increase regional water security						
6.1	Support an education and promotion campaign regarding indirect potable reuse.			Environmental Services	Media & communications	
6.2	Develop and implement a Water Security Strategy for the region to guide decision making for future drought and extreme events. The Strategy will consider: » Maintenance of environmental flows. » Housing and population growth projections. » Holistic water strategy incorporating town water, groundwater and recycled water. » Demand management and supply considerations including connections across the LGA and with the SEQ grid. » Opportunities for increasing water supplies and securing contingency sources.	Medium	advocate & Partner	Water services	Environmental Services	Seqwater, SLQ, Northern Basin Aboriginal Nations, State Governemtn, Regional local governments
ACTION TO REDUCE OUR ENVIRONMENTAL FOOTPRINT						
#	Action	Timing	Role	Council Lead		Partners
Strategy 7: Look for opportunities to participate in appropriate local government activities that reduce Council's footprint						
7.1	Review the following major plans to reduce Council's environmental footprint- SDRC Invasive Pests Strategic Plan 2021-2024 SDRC 2023 – 24 Operation Plan Waste Reduction and Recycling plan 2021-2024	Ongoing	Lead	Environmental Services		
7.2	Contribute to sustainability education in the staff induction process and through tool box talks such as waste recycling.	short	Lead	Environmental Services		
7.3	Develop and deliver training for staff involved in planning of ground disturbance in any road side works.	short		Environmental Services		

7.4	Set up and orchestrate an audit process for Council workshops and depots for activities that are, or have potential to create, offsite environmental harm. Mitigate the environmental harm and cease or alter the activity to prevent future harm.	short	Lead & Partner	Parks & Operations		Tenants and building managers
7.5	Conduct energy and water audits with each department for savings within their area	short	Lead	Sustainability & Strategy	Environmental Services	State Government -Queensland Climate Resilient Councils
				Water Services	Environmental Services	
7.6	Continue to review and implement appropriate recommendations identified in the SDRC Climate Change Adaptation Governance Assessment (2018) report.	long	Lead	Sustainability & Strategy	Environmental Services	State Government -Queensland Climate Resilient Councils
7.7 (New)	Prepare an energy efficiency plan for Council's current assets based on an audit of energy consumption and thermal performance and incorporate recommendations into the annual operational and capital works plans.	Medium	Lead	Environmental Services	Financial Services	Power providers
7.8	Continue to support the program with Ergon Energy to replace Ergon owned street lighting with LED bulbs.	Ongoing	Lead & Partner	Parks & Operations		Ergon, Origin
7.9	Continue to monitor energy usage on Council assets with the additional aim to investigate what assets could benefit from sensor lighting or solar street lighting.	Medium		Financial Services	Environmental Services	
7.1	Identify sites/assets to roll out solar program with funding allocated in budget	Medium	Lead	Financial Services		
7.11	Introduce into Pulse - footprint of energy usage, initiatives to reduce use and then show monthly updates to gain ownership of Council footprint within staff.	Long		Environmental Services	Financial Services	
7.12 (new)	Facilitate the Council adoption of the SD Soil Conservation and the Road Network Strategy. Plan for the delivery of the outcomes in the	Long	Lead	Works Department		
7.13	Develop a Green Building Master Plan to ensure new Council assets are designed and built to maximise energy efficiency, increase renewable energy and reduce urban heat impacts.	Medium	Lead	Sustainability & Strategy		
7.14 (new)	Investigate landfill gas capture from the Warwick landfill	Medium	Lead	Environmental Services	Sustainability & Strategy	

Strategy 8: Reduce greenhouse emissions from council vehicles						
8.1	Improve the tracking ability by installing GPS units in vehicles to improve fleet performance, reduce cost and increase productivity/efficiency.	Medium	Lead	Parks & Operations		
8.2	Increase the ratio of low emissions vehicles to full fuel vehicles when replacing existing fleet stock.	On-going	Lead	Parks & Operations	Parks & Operations	
8.2	Where appropriate, incorporate requirements for use of low emission vehicles in Councils major contracts.	Medium	Lead	Procurement	Procurement	
8.3	Incorporate Sustainable Procurement into the procurement process on all council vehicle purchases. This includes the current minimum standard for new light vehicles in Australia is ADR 79/04 which is based on Euro 5 standards. The current minimum standard for new heavy vehicles is ADR 80/03 which is based on Euro V standards.	On-going	Lead	Procurement		
8.4	Include in field trials low emissions fleet as part of future Council works program.	Long		Parks & Operations		
8.5	Review and update procurement documents to consider environmentally friendly component which may include low emissions.	Medium	Lead	Procurement		Community organisations
Strategy 9: Create cooler streets and neighbourhoods						
9.1	Develop a plan for an urban planting program to increase tree canopy within major township centres and neighbourhoods.	Ongoing	Lead & Partner	Parks & Operations		
9.2	Investigate site for the installation of already purchased sustainable park equipment. Integrate with one of the demonstration garden sites.	Medium		Environmental Services		
9.3	Incorporate the requirement in new developments to use low heat absorption materials and finishes into building controls within the Planning Scheme	Medium	Lead	Planning & Development	Environmental Services	Federal and State Government
Strategy 10: Encourage our homes and businesses to be energy efficient						
10.1	Increase the sustainability of existing and new residential and commercial buildings through access to information and grants.	Short	Promote	Planning & Development		

10.2	Facilitate access to energy efficiency grants and programs for residents and businesses.	Medium		Environmental Services	Financial Services	
10.3	Promote through Council owned media channels an update on completed actions from the ESS Action Plan since the 2021-2031 introduction.	Medium		Environmental Services		
10.4	Investigate the setup of Council delivered community sustainability grants	Medium		Environmental Services	Environmental Services	State & federal govt, private industry
Strategy 11: Increase provision of renewable energy for the region and community						
11.1	Advocate for and promote renewable and low carbon energy options for residents and industry.	On-going	Advocate & Partner	Planning & Development	Planning & Development	
11.2 (New)	Disseminate information and advice on the use of renewable energy sources, such as wind and solar power.			Environmental Services		
11.3	Work with all levels of government and private industry to identify opportunities for renewable infrastructure in the Southern Downs.	On-going		Economic development		Community resident and sporting organisations
Strategy 12: Increase availability and usability of active transport (walking and cycling)						DTMR Community residents and sporting organisations.
12.1 (New)	Update planning scheme to consider active transport infrastructure such as: » Inclusion of walking and cycling infrastructure in neighbourhoods including appropriate signage » Determining key education and promotion needs » Provision of bike storage and security fittings.	Short	Lead and Partner	Planning & Development	Media & Communications	
Strategy 13: Reduce reliance on and emissions from private vehicles					Planning & Development	
13.1	Promote Qld Walks Network in Warwick and Stanthorpe	On-going	Lead	Works Department	Media & Communications	Private industry
13.2 (New)	Work with all levels of government and private industry to determine feasibility and potential sites for electric charging stations.	On-going	Lead	Sustainability & Strategy		
13.3	Continue to promote alternative means of transport such as the use of the bus network as a means of moving around and within our towns to reduce reliance on private vehicles.	Short	Lead	Environmental Services		Federal and State Government; USQ; SQL

Strategy 14: Promote initiatives that encourage lower carbon agricultural practices						Federal & State Govt; USQ; SQL
14.1	Continue to promote programs which increase the amount of carbon stored in soil and vegetation and reduces the environmental footprint of farming systems.	Medium	Promote	Environmental Services		
14.2 (New)	Promote opportunities and funding available for carbon farming.	Medium	Promote	Environmental Services		Partners
ACTIONS TO VALUE NATURE						
#	Action	Timing	Role	Council Lead	Environmental Services	
Strategy 15: Assist in identifying and protecting priority species, communities and habitat					Media & communications	
15.1 (new)	Review management and landscape guidelines for Councils parks and reserves including road reserves to protect threatened species, communities and significant habitat.	On-going	Lead & partner	Parks & Operations	Environmental Services	
15.2	Promote the development of a biodiversity assets and corridors strategy to identify and map threatened species, vegetation communities, high value conservation areas and habitat on public and private lands.	Medium		Environmental Services		
15.3	Implement the Recreational Open Space Strategy and include biodiversity assets and corridors. Prepare management plans for Council reserves and other Council lands.	Medium	Lead & partner	Parks & Operations	Media & Communications	
Strategy 16: Encourage conservation protection and enhancement on private lands						Local environmental organisations, State Govt and academic institutions, SLQ
16.1	Promote voluntary conservation programs and initiatives that incentivise landholders to invest in sustainable land practices such as improving the landscape for biodiversity. Investigate Council's ability to contribute to the promotion of the voluntary nature conservation	Short	Educate & partner	Environmental Services		State Government Flying-Fox Roost Management – Local Govt Grants Program

16.2	Continue to support community groups to protect wildlife and enhance habitat on private lands and to assist in biodiversity planning and management.	Ongoing	Educate & Partner	Environmental Services	Works Department	
16.3	Implement high priority actions in the SRC Flying Fox Management Plan	Ongoing	Educate &	Environmental Services		
Strategy 17: Advocate for the protection of the ecological and cultural values of local landscapes and waterways					Community & Cultural Services	
17.1	Complete a Water Sensitive Southern Downs Strategy which includes: » mapping waterways, wetlands, refugia and riparian vegetation » mapping of cultural waterway assessments » identifying major point and diffuse pollution sources » providing green infrastructure for stormwater control and treatment including bioswales, detention basins, stormwater flow diffusers and roadside plantings » identifying stormwater planning scheme controls and design guidelines for new builds, sediment controls	Ongoing	Lead & partner	Environmental Services	Media & communications	
			Partner Promote & Partner		Water Services	
						First Nations/ Peoples local group
17.2	Work with local indigenous groups to capture and incorporate traditional and cultural knowledge history.	On-going		Environmental Services		
17.3	Review Council's stormwater quality improvement initiatives including the effectiveness of the newly developed road drainage maintenance program.	Medium	Lead	Works Department		
Strategy 18: Manage invasive species and other threats to biodiversity as legislated						Pest Management Advisory Committee
18.1	Work with partners to evaluate and manage the impact of long-term drought on ecological communities and significant trees.	On-going		Environmental Services		
18.2	Review and revise the Invasive Pest Management Plan.	On-going	Lead	Environmental Services		Qld Fire & Emergency Services SLQ
Strategy 19: Lobby for sustainable fire management that protects lives, property and biodiversity						Qld Fire & Emergency services

19.1	Liaise with emergency management regarding controlled burns to support improved biodiversity outcomes on public and private lands.	Ongoing	Partner	Corporate Services		Local Environmental groups First Nation Orgs State & Federal Govt Academic Institutions; SQL Landcare
19.2	Incorporate fire management considerations when developing management plans for Council owned land and reserves.	Ongoing	Lead & Partner	Environmental Services		
19.3	Support initiatives that improve understanding of the role and value of burning for biodiversity on private landholdings including the value of traditional fire management.	Short	Promote & Educate	Environmental Services		Partners
ACTIONS TO BUILD ECONOMIC RESILIENCE						
#	Action	Timing	Role	Council Lead		Federal Government - Smart Cities & Suburbs
Strategy 20: Increase local and regional connectivity						Roads
20.1	Continue to monitor the Smart Cities Plan web site for grant funding opportunities that Council could utilise for Smart City Initiatives and projects.	Ongoing	Lead & Partner	Economic Development	Economic Development	Regional local government Federal & State government
20.2	Advocate for DTMR to identify future transit corridors, to enable Council to identify potential heavy industry hubs (for example: storage and transit centres) and associated areas in the Planning Scheme.	Short	Lead	Planning & Development		
20.3	Identify the expected growth and demand for further transport infrastructure links and to build on the existing links in the region. To support this expected demand develop a Regional Transport Strategy encompassing Road, Air and Rail.	Long	Advocate & Partner	Planning & Development	Media & communications	Local tourism, recreation and environment org Tourism QLD SQL
Strategy 21: Encourage sustainable development and tourism					People & Culture	Local land councils and other traditional owners, Southern Qld Landscapes

21.1	Encourage nature based and eco-tourism.	Ongoing	Advocat, Partner & Promote	Economic Development	Environmental Services	Local Business organisations State & Federal Government
21.2	Investigate opportunities to support local Aboriginal employment and tourism opportunities as a result of the Black Coffee Networking Event held in Warwick.	On-going	Partner & Promote	Economic Development		
21.3	Promote initiatives and identify funding to assist small businesses to incorporate environmentally sound processes and deliver on sustainability outcomes.	ongoing	Advocat e & Partner	Economic Development	Economic Development	Local township partners
Strategy 22: Encourage sustainable development of townships					Environmental	
22.1	Support, encourage and facilitate green infrastructure development.	ongoing	Lead & Promote	Planning & Development	Media & communications	
22.2	Continue to engage the community, business and industry on the benefits of building sustainably; waste management and sustainable purchasing opportunities.			Economic Development		
22.3	Develop a guide promoting building sustainably to be made available with applications for building approvals and generally available to residents on the Council's website.	short	Lead & Educate	Environmental Services	Media & Communications	Local tourism, recreation and environment org Tourism QLD
Strategy 23: Encourage sustainable agriculture and food security						
23.1	Consider the promotion of a 'green' farm gate trail. This could be linked to other tourism ventures (cycle ways).	Medium	Partner & Promote	Economic Development	Media & Communications	State Government Local business groups
Strategy 24: Reduce waste and encourage resource recovery					Parks & Operations	Local business groups
24.1	Continue to promote programs and engage the community on waste management to avoid and reduce waste with local businesses.	ongoing	Promote	Environmental Services		

24.2	Continue the roll out of the extension of the useful life of products council uses such as vehicles, computers and phones to improve Council's circular economy participation. Continue the recycling of Council owned mobile phones once they reach end of useful life.	short	Lead	Procurement		
24.3	Identify opportunities to support on-farm sustainable waste and recycling, particularly management of plastic materials.	medium		Environmental Services		
24.4	Encourage more waste separation in the waste facilities through signage and auditing. Investigate markets for waste to resource products to reduce waste to landfill volumes	short		Environmental Services	Media & Communications	
24.5	Investigate waste minimisation projects across Council.	short		Environmental Services		
24.6	Include waste messaging in fortnightly 'Your Southern Downs E-News'.	short	Lead	Environmental Services	Economic Development	Not-for-profit organisations Chambers of Commerce
Strategy 25: Encourage circular economy infrastructure and services						Chambers of Commerce
25.1	Encourage reuse and restoration social venture organisations such as Repair cafes in the region, including provision of space at Council facilities.	Medium	Partner	Environmental Services	Environmental Services	Regional local government partners State government Tertiary
25.2	Identify and publicise circular economy champions in the community business awards when held.	Short	Promote	Environmental Services		
25.4	Work with regional partners to create a regional circular economy infrastructure hub.	long	Advocate & Partner	Economic Development		
25.5 (New)	Review and revise strategic and statutory planning controls to facilitate delivery of innovative circular economy infrastructure through diversification	On-going	Lead	Planning & Development		