



CWMS Infrastructure Asset Management Plan

2026/27 – 2035/36

July 2026

**Endorsed by Council
at its meeting held on
9th September 2026**

Prepared for DC Kimba by

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DISCLAIMER: The projections of lives and costs in this plan are inherently probabilistic. Actual lives, failure mechanisms, practical replacement programs and renewal costs will differ from the indicative content of this plan. Therefore the plan must be acknowledged as a broad-brush guide only to the embedded expenditure needs for the asset to be operated, maintained and replaced over time.

1. EXECUTIVE SUMMARY

The District Council (DC) Kimba is a Water Industries Entity in South Australia, as defined in the Water Industries Act 2012.

This Asset Management plan deals specifically with assets that are used by DC Kimba in the delivery of its CWMS “Water Entity” services in Kimba, which, combined with other stormwater capture and re-use, provides benefits to its broader community.

DC Kimba has an exemplary Total Water Strategy, harvesting both treated wastewater and stormwater. Stormwater harvesting has been augmented in recent years by construction of both an additional 15 Megalitre retention dam off Mayfield Court, and a lined water-harvesting catchment up-slope from the pre-existing Roora town stormwater storage dam. Beneficial end uses with high public amenity value include non-potable water being available for the Football Ovals, Bowling Green and Golf Course landscaping, with the ability to shandy less saline rainwater run-off with treated wastewater. At the time of writing, all stormwater and wastewater lagoons are brim-full, affording Council total independence of potable reticulated water for its major public amenities.

More than 50 Local Authorities in South Australia provide CWMS services. These are therefore considered normal activities to be carried out by a local government (water) entity.

KIMBA CWMS IS INTEGRAL IN KIMBA’S TOTAL WATER STRATEGY





CWMS Principal Facultative and Maturation Lagoons



CWMS Maturation Lagoon



CWMS Treated Wastewater Storage Tanks at Town Ovals



4 Ha Stormwater Harvesting Liner complementing Roora Dams



New 15 Megalitre Stormwater Dam in Mayfield Court

The above photographs and aerial map show infrastructure examples of Council's extensive Total Water Strategy Assets (Treated Wastewater and Harvested Stormwater). Watering of Ovals, Bowling Club and Civic Areas with Treated Wastewater, Harvested Stormwater, and mixtures of both. Reliance on Potable Water Supply for these facilities has been cut to zero in some years.

This Infrastructure Asset Management Plan covers all CWMS infrastructure up to the inlet to the Storage Tanks at the Ovals.

1.1 Asset Values and Lives (Total and Remaining)

The latest formal revaluation of the CWMS Asset was undertaken in 2024 (by GPE Pty Ltd). The data sets which populate the graphs and which underpin the calculations in this IAMP have been updated to current prices and adjusted lives, taking into account price movements and renewals in the interim period since 2024/5. The latter parameters were updated by GPE in consultation with Council, contractors and industry indicators.

The updated data sets are too large for inclusion in this document; they reside in Master Files in Council's Corporate Electronic System.

The current replacement cost of the entire CWMS asset is estimated in 2026 prices as follows:

- CWMS (excluding Ovals Treated Wastewater Infrastructure) **\$5.483m**

In addition to the CWMS infrastructure, Council has a major investment in stormwater harvesting and re-use (parts of which are shown above on the annotated aerial map and photographs). This adds a substantial amount of well over \$1.5 million to its Total Water Strategy Infrastructure (storage dams and tanks, pumps, rising mains, descaling equipment, irrigation networks etc).

1.2 Forecast Capital Expenditure on Council's Wastewater Assets for the next 10, 20, 30 and out to 60 years

1.2.1 Renewal

Based on independently-assessed Remaining Useful Life of the visible components of Council's water assets, the forecast total CWMS Renewal Cost for the next 10 to 60 years in relation to replacing existing assets is given in the following table:

KIMBA CWMS				
Period Years	1-10	11-20	21-30	31-60
Cost for period	32500	27000	70300	4933300
Averaged \$pa	3250	2700	7030	164443
Progressive Total	32500	59500	129800	5063100
Averaged Cumulative \$pa	3250	2975	4327	84385

TABLE: Total and Annualised Average Capital Renewal Costs by Time Period

1.2.2 New or Upgraded Asset Capital Expenditure

The forecast total cost for the next 10 years in relation to building new or upgraded assets includes only a seven-connection mains extension in Frick Street, under construction at present. No other specific upgrades or new assets are planned.

Reference needs to be made in Councils Long Term Financial Plan in relation to projects and new asset construction that may or may not go ahead in the future. Please refer to the LTFP for further information on potential new assets that may be agreed to at some stage in the future. Should this occur then this IAMP and the LTFP should be amended to reflect the changes.

1.3 Maintenance

Council staff have a thorough understanding of their CWMS maintenance requirements, including fully funded activities such as septic tank desludging, drain flushing and IP clearing and greasing, to name a few. The level of past and budgeted future expenditure is indicative of good practice, arguably having reached Best Practice in terms of standards in South Australian Local Authority water services. Comparisons with past years are presented in the body of the report below, showing substantial increases for proposed expenditure in real terms. There being no obvious backlog of maintenance activities after additional planned actions over the next two years, it is fair to say that the proposed annual maintenance expenditure in this ten-year plan represents sustainability for annual maintenance and operation of the CWMS infrastructure.

1.4 Conclusions

Council's CWMS Infrastructure has been observed, valued and modelled for its financial needs over the coming decade, this in turn being linked to Council's separate Long Term Financial Plan.

Council has active and informed operational and administrative personnel and practices in place, ensuring that appropriate infrastructure operation, maintenance and improvement procedures and plans are in existence, with appropriate funding being accounted for in budgetary allocations.

Improvements to the IAMP will continue to come from ongoing updating and more detailed assessment of individual components of infrastructure over time.

2. INTRODUCTION

2.1 Background

This infrastructure asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service.

The Plan is linked to Council's asset management policies, asset management operational and maintenance practices, and the following associated documents:

- District Council of Kimba Strategic Plan 2025- 2034
- District Council of Kimba Long Term Financial Plan 2027-2036

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased demand.

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost-effective manner for present and future consumers.

The key elements of infrastructure asset management are:

- Taking a life cycle approach;
- Developing cost-effective management strategies for the long term;
- Providing a defined level of service and monitoring performance;
-
- Sustainable use of physical resources;
- Continuous improvement in asset management practices; and
- Compliance with Council's statutory obligations.

2.2.1 Vision, Values and Strategic Objectives

The following vision, values and strategic objectives are contained in the ***District Council of Kimba Strategic Plan 2025- 2034*** (font and format from the Strategic Plan).

VISION

To create a vibrant, sustainable community through leaders who are committed, innovative and who go beyond imagining a better future - they make it happen.

OUR VALUES

Council's values are the core principles and beliefs that guide the behaviour, decision-making, and culture of the organisation. They reflect what Council stands for and influence how we conduct business, interact with employees, customers, and other stakeholders, and achieve our goals.

Integrity – a commitment to honesty, transparency and ethical behaviour

Innovation – fostering creativity and adaptability in an ever-evolving landscape

Inclusion – creating an environment where every voice is heard, every viewpoint is considered and individuals feel safe, included, respected and supported

STRATEGIC OBJECTIVES

To support the development of the Kimba Township and district, Council has identified a range of strategic objectives and principal activities to focus its energies and resources on that will assist in supporting business growth and improving services to the community and its visitors. Three (3) strategic priorities have been identified by the Council, each of which represents an area of focus to guide future policy decisions, objectives and investment decisions for the District Council of Kimba. The principal activities are identified in Council's strategic management plan and are shown on Council's website or are available from the Council office.

1. Sustainable Development

To adopt practices that meet the community's current needs while ensuring that the natural environment and resources are preserved for future generations. This includes implementing eco-friendly infrastructure, maintaining existing Council and Community assets in a responsible manner, promoting sustainable agriculture, and encouraging the conservation of natural assets.

2. Community & Economic Growth & Innovation

To stimulate Kimba's economy through innovative approaches and diversify the economic base by attracting and supporting new and existing businesses, promoting tourism, and encouraging emerging industries while providing, maintaining, and promoting sustainable community services.

3. Progressive & Responsive Leadership

To foster a forward-thinking and inclusive approach to governance, emphasizing the importance of transparency, community engagement, and adaptability in decision-making processes. To proactively identify and address community needs, stay informed about current trends, and be open to innovative solutions. To build strong relationships with stakeholders, encourage public participation, and foster community ownership in district initiatives.

2.3 Plan Framework

Key elements of an asset management plan are

- Levels of service
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how the organisation will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required services.
- Monitoring – how the plan will be monitored to ensure it is meeting the organisation's objectives.
- Asset management improvement plan

3. LEVELS OF SERVICE

This plan has been prepared on the assumption that current service standards are adequate to meet the expectations of the community. Essentially the levels of service for wastewater assets are defined by regulation; the fact that Council is meeting its regulatory requirements indicates that the level of service can be regarded as adequate. Further to this, records indicate- that Council has moved from unsustainably low service charges well towards full cost recovery and opportunity cost accounting, and appears to have reached a reasonable and improving level of financial sustainability.

As in the previous ten-year period, Council's administration continues to be active in developing mechanisms to comprehensively record the range and levels of its asset services, and the cost of providing the services at the established levels of service. This then provides Council with solid decision-making data to analyse the impact of various scenarios on Councils long term financial position where services are increased or decreased.

3.1 Community Levels of Service

These relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance.

Community levels of service measures used in the asset management plan are:

Quality	How good is the service?
Function	Does it meet users' needs?
Safety	Is the service safe?

3.2 Technical Levels of Service

Supporting the community service levels are also technical measures of performance. These technical measures relate to the allocation of resources to service activities that the Council undertakes to best achieve the desired community outcomes. The technical measures also include all statutory compliance requirements (eg, the stipulated performance criteria in both the EPA licences and Department of Health approvals of schemes).

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide uninterrupted CWMS services
- Maintenance – the activities necessary to retain assets in proper working order, to achieve their design life without premature failure or unplanned interruption to the service (eg pump servicing, line flushing, septic tank desludging, water quality testing, routine replacement of consumable items, timely preventative repairs),
- Renewal – the activities that return the service capability of an asset up to that which it had originally (eg renewal of a pump, replacement of valves, relaying of a drain, replacement of a storage tank),
- Upgrade – the activities to provide a higher level of service (eg treating water to a higher standard for re-use in a contact environment, improving pressure or total quantity of wastewater supplies, replacing a pipeline with a larger size) or a new service that did not exist previously (eg a CWMS for a presently-unserviced part of town).

4. Future Demand Forecast

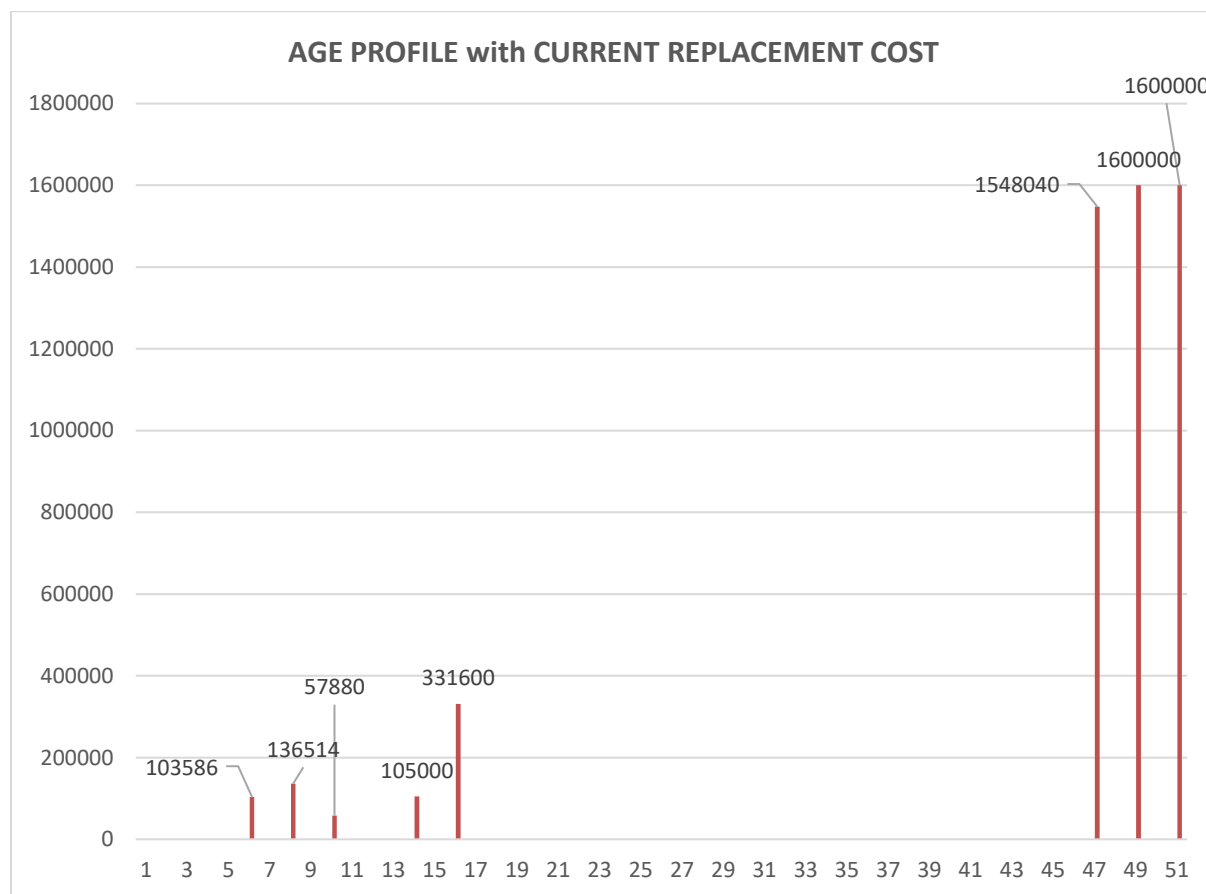
Factors affecting demand include population change, changes in demographics, seasonal factors, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc.

The view taken in the preparation of this plan as well as the LTFP is that there will be minimal shifts either upwards or downwards in current population levels. Should this change over time then both the IAMP & LTFP will need to be updated.

5. Age Profiles of Councils Existing Water Assets

5.1 Value of CWMS Assets by Age

DC Kimba – CWMS - Age Profile with Current Replacement Cost



The majority of the infrastructure is around 48 years of age, with life expectancy of another 50+ years.

Large spikes indicate the major project status of such Works, ie, the majority of the capital investment occurred, and will occur, in discrete, major outlays over short periods.

These primarily indicate the build years for Kimba's CWMS in 1978, and the addition of Water Recycling infrastructure between 2011 and 2013 (two stages of storage lagoons included).

6. Capital Expenditure Required on CWMS for the Next 10 Year Periods.

6.1 Construction of New or Upgraded Assets as distinguished from the Renewal or Replacement of Existing Assets

The following definitions have been obtained from the South Australian Local Government Model Financial Statements.

A *new asset* is additional to Council's previous asset complement.

E.g. Roads constructed as part of a Council owned subdivision are new assets. Similarly laying footpaths in areas where they did not previously exist are also new assets.

An *upgraded asset* replaces a previously existing asset with enhanced capability or functionality.

Renewal or replacement of an asset occurs where a previously existing asset is replaced without enhancement of the service capability except where this is incidental and unavoidable.

It is possible for capital expenditure to be a *combination of renewal as well as upgrade*. E.g. the replacement of a sump access cover that was initially compliant but has no catch-cages, and is replaced with a lid having light-weight, lockable lids with catch cages and automatic temporary railing when open, can be considered part replacement and part upgrade.

The important point to understand is that if Council is not able to replace its existing assets in a timely manner, then new assets should not be built unless essential. By building new assets Council is effectively building new liabilities. These new assets need to generate sufficient revenue to pay for their maintenance and eventual replacement. Fortunately, the Kimba Council is able to charge a service charge, if not an up-front augmentation fee, for all new CWMS-serviced allotments.

6.2.1 Projected Capital Renewal Expenditure

The Table in Clause 1.2.1 of the Executive Summary shows the planned capital renewal expenditure requirements which derive from the updated assessments in the Asset Register.

The graphs in the following sections highlight the peaks and troughs of expenditure requirements required to maintain Councils existing wastewater asset portfolio. Renewal dates have been determined from Councils' asset registers by comparing each asset's acquisition date with its theoretical total useful life, or by field inspection regardless of build date.

The first thirty years' required expenditure from the Table is shown in graphical format below. As can be seen from the graph, only relatively small outlays of Capital Renewal Expenditure has been identified as likely within the life of this Plan, or at any stage of the next thirty years.

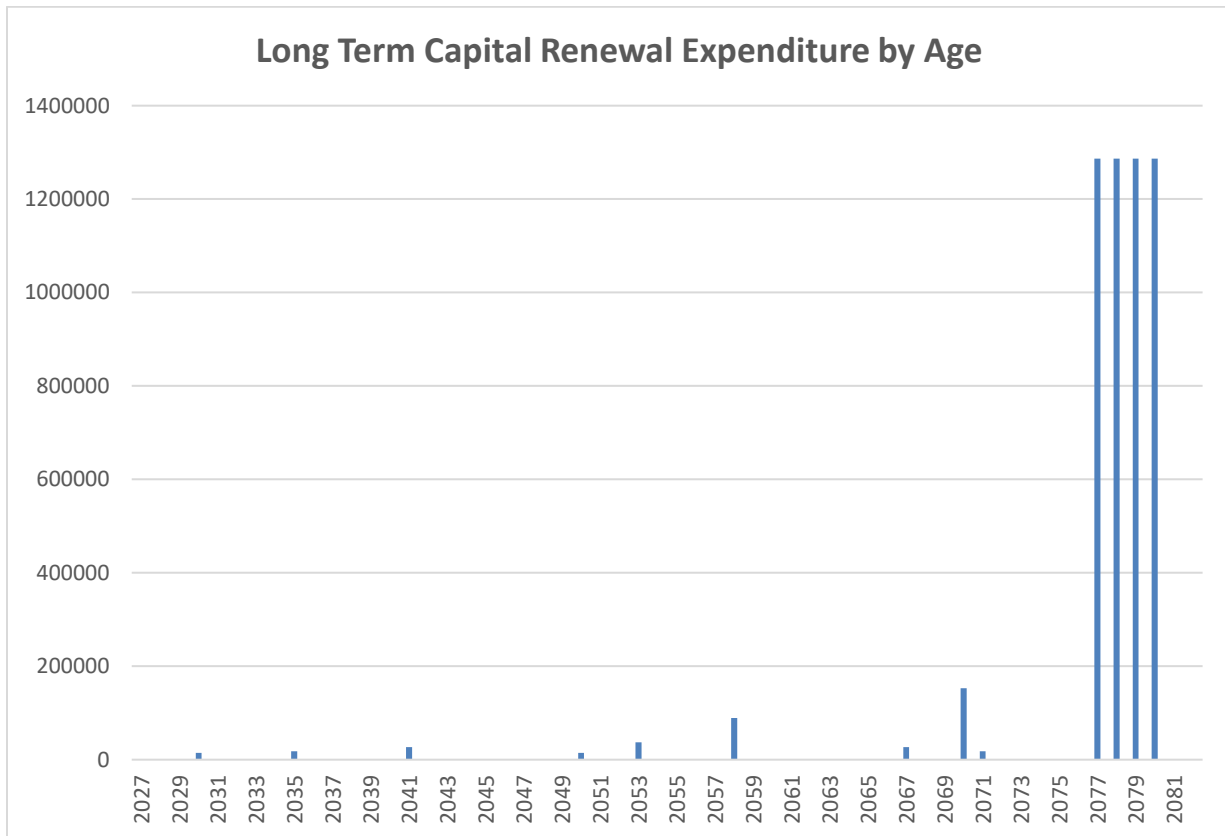
Comprehensive remedial works on Manholes have been undertaken on all units since 2017, effectively renewing them for another 60 years. Covers have been renovated and replaced where necessary with similar new life expectancy.

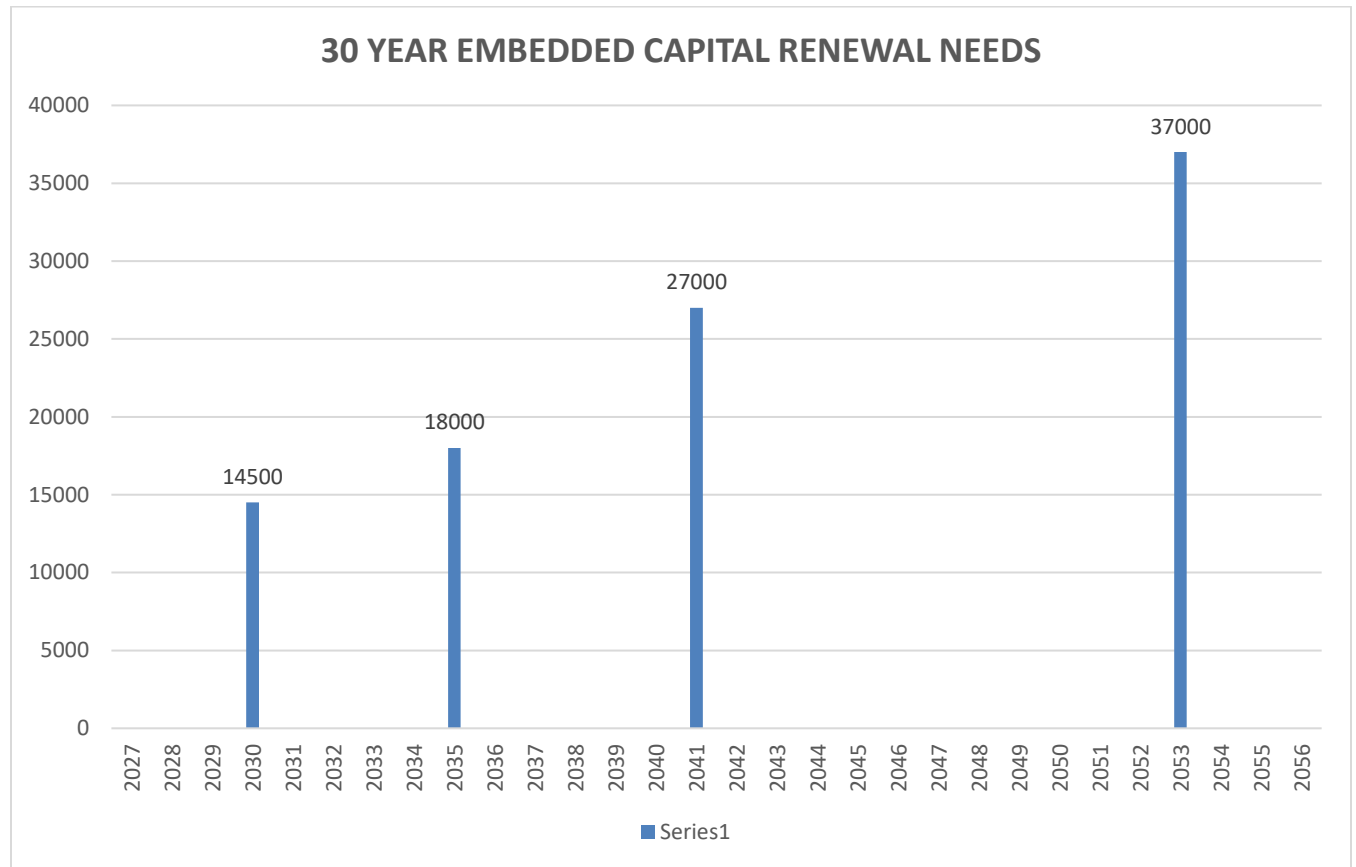
Previously evident deterioration of pipe "chases" in some manholes has also been fully remediated. This work has been capitalised and is recognised in the revalued asset. (see *before and after* photos in Appendix 1).

This is not to say that other failures (ie, renewal needs) won't occur, but these are unforeseeable on the basis of visual evidence of likely remaining life of the observed assets. A certain amount of renewal is picked up through maintenance in any event (eg, faulty valves or filter screens, bank protection works), but these small costs are already being covered by annual maintenance allocations. The same is true for occasional gravity drain or rising main breakages, none of which are likely in the foreseeable future. Whilst these are capital renewals in essence, their costs are not likely to require additional capital renewal allocations, ie, they come out of the existing levels of maintenance allocations.

Note that the figures for various years in the following chart compare with a Long Term Life Cycle Cost for all wastewater assets of approximately **\$56,000 pa** (long term average annual depreciation expense in 2026 prices, ie, the "straight-line" dollar rate of consumption of the overall capital asset).

The longer term graph demonstrates emphatically how required Capital Renewal Expenditure varies drastically from period to period as large sections of the network reach the probable end of their useful lives more or less concurrently.





CWMS EMBEDDED CAPITAL RENEWAL EXPENDITURE - NEXT 30 YEARS (AGE BASED)

6.2.2 Projected Capital Expenditure on the construction of New or Upgraded CWMS Infrastructure.

After incorporation of Frick Street extension (7 connections) into the system and Asset Register, there are no known items to be built in the next ten years which would qualify as “new capital works”, unless unexpected private subdivision activity occurs, in which case any new CWMS asset would be donated.

6.3 Maintenance and Operational Expenditure

6.3.1 Present Levels of O&M Expenditure

The Kimba STEDS (now Community Wastewater Management) Scheme is one of the simplest ever built in South Australia.

It has no collection pump stations, and simply gravitates to a Facultative Lagoon (5 bay conventional layout) in dry, warm and high-sunlight conditions.

Recently a simple holding dam was constructed by deepening part of the existing clay-lined maturation lagoon, and installing an extraction Pump Station with filters and disinfection unit. A second storage dam was fashioned in 2013 from a part of the old (obsolete) evaporation lagoon.

Treated wastewater is pumped to the town oval precinct into buffer tanks prior to sending to the irrigation network.

Whilst the system is basic and straightforward, nevertheless it is being maintained in accordance with sound practice principles.

Items now identified as worthy of preventative maintenance (after some proposed remedial capital works) are now to be attended to on an ongoing, regular basis (eg, rust removal and/or anti-corrosion treatment such as greasing of cast iron plate inserts).

Maintenance and operational expenditure is highly dependent on effective and timely preventative maintenance, prices of inputs (chemicals, electricity, consumables) and Regulatory changes (eg, disinfection standards). It can also be variable across seasons and years due to climatic conditions (eg, amount of treated water available for re-use).

Maintenance expenditure for past years has been examined and discussed with the Council Management, confirming the following practice;-

- Council has an effective septic tank desludging program in place, which is vital to minimize operational problems, blockages, treatment costs and gas attack in sumps in the public system;
- “Jet-vac” high pressure reverse flushing of drain lines has been included in the present and forward budget allocations and estimates to minimise buildup of sludge deposits, enhancing previous flushing by bulk release of water under gravity from a water truck into end-of-drain Flushing Points.

Maintenance expenditure for the past five years and the budget allocation for 2026/27, **brought up to 2026 constant prices** for proper comparison, is as follows;

2021/22	\$ 68,100		
2022/23	\$ 57,400		
2023/24	\$ 52,400		
2024/25	\$ 64,600		
2025/26	\$ 60,000	5-year past average (rounded)	\$60,500 pa
2026/27/28	\$ 140,000		

The increased allocation for 2026/27 and 2027/28 has been made specifically to allow for a comprehensive system check by CCTV of Gravity Drains, after desludging of septic tanks and prior to pressure jet vacuum flushing of all gravity drains to the highest commercial standards presently on offer in regional South Australia.

The average allocation for the ten-year period of this Plan is **\$76,000 pa** or approximately 25% above the past average of \$60,500 pa, demonstrating Council's intended funding of ongoing Best Practice maintenance of its CWMS asset.

6.3.2 Additional Recommended Expenditure

i) Access Covers (Manholes and Flushing Points)

There are approximately 250 Flushing Points and 15 Manholes in the Kimba network.

As with most networks built more than a few years ago, many Flushing Point points have been covered over, or have not been looked at since installation (eg, the many which are in backyard easements, or under reseals in roads), and many Manhole Covers had become rusted in place and could not be opened without major effort and/or damage.

Manhole covers have all now been treated fully (some being replaced).

For a system to be maintained to Best Practice levels, all access points should be openable, rust-free, cleared of foreign material and easily visible.

It is believed that any hidden Flushing Point screw caps can be addressed within the present and proposed O&M allocations.

ii) Power Jet Flushing

The past practice of sluicing was not necessarily effective in de-scumming pipes, but is useful in between more aggressive retro-acting pressure-jet cleaning.

The same comment applies to cleaning of internal surfaces of pump sumps and deeper manholes.

So-called “jet-vac” units use higher-scouring, retrofiring spray heads and techniques to remove more deposits and to lessen the required frequency, but at similar overall cost if the preventative benefit (of avoiding costly emergency unblocking) is taken into account. The O&M budget has been raised for two years to facilitate contract jetvaccing of the drain lines. The cost of future timely jet flushing may well be covered by the proposed allocations. This is an item which would logically be monitored for consideration towards the end of this Plan or early in the next ten-year period.

iii) Grease Traps

Another crucial matter of preventative maintenance pertains to commercial food premises (fish and chip/chicken and meat-preparation business premises) which have grease traps prior to effluent being accepted into the CWMS gravity drain network.

It is essential for these traps to be serviced regularly, and for an authorized Environmental Health Officer of Council to maintain a regular audit of same. However the cost of so-doing is more aligned with Food Compliance, and is not accounted for in the financial figures in this report.

However, CCTV of the Gravity Drains over the next two years should identify any drains which have a build-up of greases, informing Council's EHO about necessary follow-up action “at the source”, ie, for grease trap maintenance.

iv) ESCOSA/OTR-driven Changes

Council has embraced these changes, as required (eg, by ensuring that they have the systems and databases necessary to be able to report compliance to those external bodies).

The costs of implementing the standard of maintenance required to keep the physical infrastructure and equipment in compliant condition appear to be covered by the budgeted and future-proposed allocations.

6.3.3 Total Maintenance Expenditure

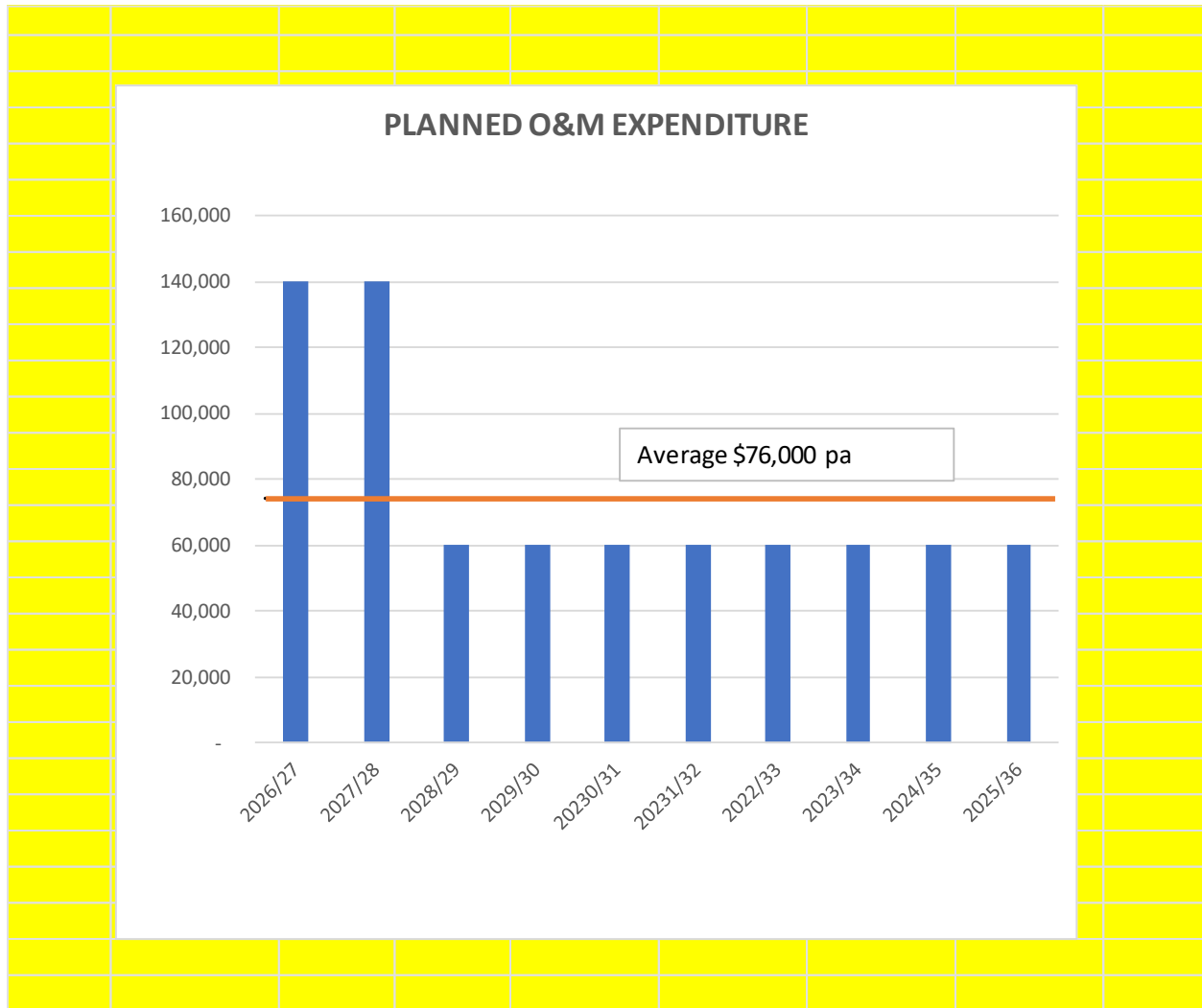
The funds in 6.3.2 above are in addition to the just-completed program (over the past 9 years, including 2026) of injection of the targeted *capital* (remedial) funds for work on Manholes. Those works are expected to guard against early failure due to gas attack causing concrete deterioration. The new surface remediation and protection coatings make routine maintenance of the manholes much easier and effective in future.

Council's proposed Operation and Maintenance expenditure is for \$140,000 pa for the next two years, followed by \$60,000 pa for the next 8 years.

Averaged over the next ten years, the proposed expenditure equates to approximately \$76,000 pa, representing an increase of approximately 25% pa compared with the past five years.

Taking all of the above factors into account, and considering the apparent and observed condition of the CWMS system at present, the quantum of envisaged O&M expenditure appears to be adequate to maintain the system in proper working order, achieving optimum life from the components (drains, sumps, covers etc) whilst maintaining the required Levels of Service (Technical and Community).

Projected CWMS Maintenance and Operational Expenditure



7 Improvements to the IAMP

Whilst no specific improvements to this IAMP appear to be necessary at present, nevertheless there will be ample opportunity to do so, arising from ongoing updating and more detailed assessment of individual components of infrastructure over time, keeping records of actual costs, evidence of different values of parameters such as useful lives and the like, and changes to practices brought about by Regulatory changes and/or changes driven by improved knowledge within the sector across the State.

APPENDIX 1

PHOTOGRAPHS OF KEY COMPONENTS

WASTEWATER (CWMS and Recycling) INFRASTRUCTURE ASSETS



Manhole sump prior to remediation



Manhole sump after remediation, including

- invert chase repairs
- cover lid renewal (not shown)
- support ring descaling and greasing for easy removal (not shown)



Facultative Lagoons in very good condition. Internal baffles exceptionally sound (unusual). Re-use Pump Shed in background.



Maturation Lagoon



Winter Storage Pond between Facultative Lagoon and Re-use Pump Shed



Re-use Pump Shed, Filter and Disinfection Unit: at installation time



Pump Shed 16 years later: excellent condition (well-maintained)



Buffer tanks at Football Oval. This IAMP terminates at the Tank Inlets.

APPENDIX 2

DATA (REVALUATION) SCHEDULES

These documents are attached as hard copies only due to size and shape