Ararat Rural City Council

Drainage

Asset Management Plan

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1 Plan Intention and Structure

The intent of this document is to outline the approach used by Ararat Rural City Council in managing its drainage network. This plan covers the entire lifecycle of all elements of managing the drainage network including but not limited to:

- Construction and Capital Works.
- Maintenance.
- Inspection and Health Assessment.
- Asset Register and Data.
- End of life/Renewal.
- Valuation.
- Incident Management.
- Reporting.

Ararat Rural City Council will execute the management of its drainage network aligned with the approach outlined in this plan.

This plan is structured into components representing operational areas of the council called 'services. The responsibilities that exist within those services combine towards a whole of organisation approach to asset management.

Council service lines included in this plan are:

- Asset Management
- Depot Operations
- Finance
- Engineering
- Procurement
- Customer Services
- Governance
- Occupational Risk and Safety
- Organisational Transformation

2 Introduction

2.1 Drainage Asset Class

Ararat Rural City Council maintains a vast network of under city drainage assets including pits, pipes, culverts, and channels. A predominant portion of these assets can be found within the townships and form the general Ararat Rural City Council stormwater and drainage network. Assets such as bluestone open channel drainage are easily recognisable within several of the municipality's townships as landmarks.

In general drainage assets are considered long life assets with stone-based channel assets in particular exceeding 100-year useful life estimates. A major challenge with the drainage network can be the assessment of condition and defect within difficult to access under city assets. Emerging technology established within the last 10 years using optics and other IoT technology provides opportunity to assess assets where human assessment is impractical.

2.2 Drainage Profile

The drainage network includes:

- Built underground drainage/storm water pits, pipes, conduits, and gross pollutant traps.
- Natural earth drainage systems, water catchment and retention zones
- Above ground assets including culverts, retention basins and discharge points.

2.3 Considerations and Influences

Key issues for current and future drainage management and planning are summarised below:

- New developments are adding pressure to the current drainage systems, many of which were built decades ago, and their condition and functionality is generally unknown across parts of the network. Drainage functionality may only become apparent during a flood event. Partnerships with the SES and other emergency services and utilisation of flood mapping will add value to drainage planning and investment modelling.
- Storm water management and maintenance programs need to be funded to appropriate levels given the criticality of this infrastructure and the impacts from its failure.
- A key gap in corporate knowledge and capacity to plan for and invest in effective drainage is impeded by a lack of condition assessments of the current network and the cost to undertake such assessments for this infrastructure class. Therefore, condition data is limited and a full condition assessment and camera visualisation of the drainage network should be developed and mapped on the confirm asset management system.
- Condition auditing will allow for improved proactive maintenance and monitoring of drainage systems, along with the mapping of known problem areas. This will assist with emergency event preparation and management.
- Community service level expectations, particularly for drainage and other asset service levels, can vary between rural and urban residents and longer term and new residents. New residents may have relocated from urban to rural localities where road, drainage and other services are

not comparable to metro or more developed urban towns. Council has limited resources and funding capacity to provide a uniform drainage service level across the shire.

- Developing adaptation responses for assets and infrastructure to address forecast impacts from climate change will be necessary to build asset resilience. The resilience of our critical infrastructure is vital to the ongoing provision of services to customers.
- Internal and external development planners will need to consider water management options for new developments, and provide Council with digital as constructed drawings once works are completed. This should also include consultation with key referral authorities.

2.4 Key stakeholders

There are several stakeholders and communities involved in the planning, management, and investment in Ararat Rural City Council's drainage assets. These include:

- Councillors, Council officers and contractors
- Catchment management authorities and water authorities
- Emergency services and agencies
- Land holders and property owners
- Land use and development planners
- Community committees of management
- Other State Government departments and agencies
- Infrastructure developers including residential, commercial, and industrial.
- Residents and visitors
- Utility providers
- Insurers

3 Asset Management

The Asset Management service is responsible for the delivery of the following core items.

- Asset Management System.
- Asset Class Definition.
- Asset Data Structure and Schema.
- Intervention Definitions.
- Condition Definition and Inspection.
- Asset Attribute Data Collection and upkeep.
- General Asset Reporting.

3.1 Asset Management System

Ararat Rural City Council uses an Asset System called Confirm. Confirm has two modules that act as extensions to the Confirm software, Confirm Connect and Confirm WorkZone.

Confirm Connect is a mobility enabled software module that is built for the specific purpose of 'in the field' use. The software works on a tablet or phone and can work in both online (internet connected) and offline (blackspot or offline) modes. Primarily the software is used by operators to complete 'in the field' activities such as condition inspections, defect inspections or asset attribute data collection.

Confirm WorkZone is used as a management interface to schedule works. This allows for works in similar locations to be grouped, so works can be executed by a crew whilst in a specific region or zone.

3.2 Drainage Class Definition

Ararat Rural City Council's drainage network is broken down into four different classes. This breakdown serves as both a separator for type and a means to value the drainage network. The classes are Pits, Pipes, Culverts, and Channels.

3.3 Drainage Data Schema

The following structure outlines the mandatory and optional attribute data collected specific to the Ararat Rural City Council Drainage Network (Refer IPWEA Practice Note 5: Stormwater Drainage, Appendix 4 – Examples of Data Collection Sheets)

MANDATORY PIPE DATA

- Pipe Identification No
- Diameter/dimensions (for box culvert)
- Material (RCP, Corrugated Steel, Glazed Earthenware, Poly, AG Drain, Iron, Unknown, other, Etc.)
- Location (Street, Suburb)
- Upstream Pit ID
- Downstream Pit ID
- Invert levels
- Cleaning required.
- Inspection date / inspected by

- Structural Condition

OPTIONAL PIPE DATA

- Location (Road Reserve, Property, Open Space, Easement, other?)
- Distance between pits
- Grade (1:100 etc.)
- Traffic management required for access?

MANDATORY PIT DATA

- Pit Identification No
- Pit Dimensions (size & depth)
- Material (Concrete, concrete precast, brick, plastic, Etc.)
- Location (Street, Suburb)
- Lid type (cast iron, concrete, fiberglass, grate, etc.)
- Invert levels
- Cleaning required.
- Inspection date / inspected by
- Structural Condition (cover, walls, connections)

OPTIONAL PIT DATA

- Location (Road Reserve, Property, Open Space, Easement, other?)
- Litter basket? (y/n)
- Heavy lid? (2 person required)
- Steps? (Single width, double width, ladder, toe holes, none?)
- Traffic management required for access?

PIPE DATA CAPTURE

____/____/____

Staff Member:	• Staff 1 • Staff 2 • Staff 3 • Other
Pipe ID:	
Diameter:	_____ mm Or (Box Culvert) _____ mm x _____ mm
Material:	• Concrete (Unspecified) • UPVC • Corrugated Steel / Aluminum • Fibre Reinforced • Glazed Earthenware • Reinforced Concrete • Polyethylene • High Density Polyethylene • Medium Density Polyethylene • Iron • Vitreous Clay • AG Drain • Spiral Wound Steel / Aluminum • Unknown • Lining • Other _____
Location:	• Road Reserve • Property • Open Space • Easement • Other

Street:	
Location:	
Suburb:	
Upstream Pit ID:	
D/Stream Pit ID:	
Other	• Cleaning Required • Traffic Management
Inverts	
Upstream	_____ mm
Downstream	_____ mm
Comments	_____ _____ _____
Condition Ratings	
Structural	(Best) 1 / 2 / 3 / 4 / 5 (Worst)
Serviceability	(Best) 1 / 2 / 3 / 4 / 5 (Worst)

PIT DATA CAPTURE

____/____/____

Staff Member:	• Staff 1 • Staff 2 • Staff 3 • Other
Pit Asset ID:	
Pit Type:	• Junction Pit • Side Entry Pit • Grated Pit • Gully Pit • Grated Side Entry Pit • Gross Pollutant Trap • End / Head Wall • Pipe End (Outfall) • Unknown
Pit Material:	• Concrete (Pre-Cast) • Concrete (Cast Insitu) • Brick • Unknown
Lid Type:	• Cast Iron • Concrete Insert • Fibreglass • Gatic • Grate • Unknown
Lid Shape:	• Rectangular • Circular • Other_____
Steps:	• Single Width • Double Width • Ladder • Toe Holes • None
Step Material	• Iron • Galvanized Iron • Stainless Steel • Plastic • Other

Street:	
Location:	
Suburb:	
Litter Basket	Yes / No
Other	• Heavy Lid (2 Person Lift) • Easement Pit • Traffic Management • Requires Cleaning
Dimensions	
Pit **Depth**	_____mm x _____mm _____mm
Lid	_____mm x _____mm
Comments	_____ _____ _____
Condition Ratings	
Walls	(Best) 1 / 2 / 3 / 4 / 5 (Worst)
Steps	(Best) 1 / 2 / 3 / 4 / 5 (Worst)
Connections	(Best) 1 / 2 / 3 / 4 / 5 (Worst)
Cover	(Best) 1 / 2 / 3 / 4 / 5 (Worst)

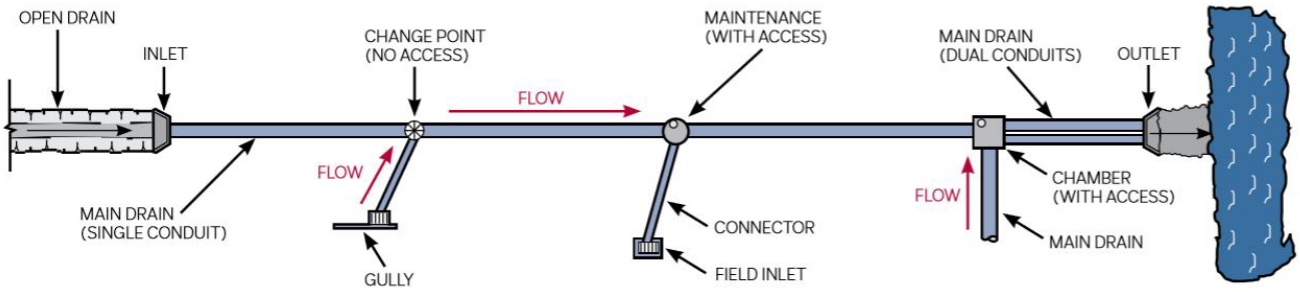
3.3.1 Spatial Data

The Ararat Rural City Council drainage network is captured spatially by position (latitude and longitude) and can be displayed on a mapping environment however the spatial representation of the bridge as a three-dimensional model (using LiDAR etc) is not available at this time.

3.4 Condition Inspection

Condition inspections occur via one of the following methods.

- Level 1 Inspection by Asset Officer or Authorised Maintenance Staff
- Level 2 Inspection by Asset Officer or Engineer
- Level 3 Drainage System Investigation/Study undertaken by Specialist engineer/consultant.



BCC 2010, "Stormwater Assets Pipe Survey – CCTV -Specification & Guide", Brisbane City Council 2010 – (from PN 05, 1.0 Scope of These Guidelines)

3.5 Condition Definition

Condition Rules (0-5 overall general condition values with definitions) (IPWEA Practice Note 5: Stormwater Drainage, 9.2 – Rating System for SWD Condition Assessment)

CONDITION GRADING TABLE FOR SWD ASSETS (Structure and Serviceability)				
Grade	**Condition**	**Description**	**Response**	**Residual Life (i.e. Estimated % Asset Design Life Remaining)**
0	Not Rated	Asset has been properly decommissioned, no longer exists (or should be removed from inaccurate plans), has not been condition rated (or assigned an extrapolated condition), or is unable to be rated due to serviceability issues.	Response will vary subject to circumstances. E.G. An abandoned asset may experience infiltration, voids, collapse etc, and pose a real danger that should be both monitored and managed.	NA
1	Very Good	Structural: Sound physical condition. Insignificant deterioration. Asset likely to perform adequately without major work for 25 years or more. Serviceability: No or insignificant loss of hydraulic capacity.	No immediate action required. Maintain standard programmed condition assessment.	60% to 100%
2	Good	Structural: Acceptable physical condition; minor deterioration / minor defects evident. Serviceability: Minor loss of hydraulic performance. Negligible short-term failure risk but potential for deterioration in long-term (20 years plus). Only minor work required (if any).	No immediate action required other than possible cleaning. Maintain standard programmed condition assessment.	35% to 60%
3	Fair	Structural: Moderate to significant deterioration evident; Minor components or isolated sections of the asset need replacement or repair now but not affecting short term structural integrity. Serviceability: Moderate loss of hydraulic performance but asset still functions safely at adequate level of service. Failure unlikely within next 10 years but further deterioration likely and major replacement likely within next 10 to 20 years. Work required but asset is still serviceable.	Take action as appropriate to address defects and if necessary, cleaning, silt removal, root cutting. Monitor with programmed condition assessment for rehabilitation and / or renewal in medium term.	20% to 35%
4	Poor	Structural: Serious deterioration and significant defects evident affecting structural integrity. Serviceability: Significant loss of hydraulic performance. Substantial work required in short-term to keep asset serviceable. Failure likely in short to medium term. Likely need to replace most or all of asset within 10 years. No immediate risk to health or safety but works required within 10 years to ensure asset remains safe.	Take immediate action as appropriate to address the defects. Immediately undertake risk assessment and further investigate options. Schedule appropriate action – rehabilitation or renewal in short term.	10% to 20%
5	Very Poor	Structural: Failed or failure imminent. Immediate need to replace most or all of asset. Serviceability: Health and safety hazards exist which present a possible risk to public safety, or asset cannot be serviced / operated without risk to personnel. Major work or replacement required urgently.	Take immediate action as appropriate to address the defects. Immediately undertake risk assessment and further investigate options. Schedule appropriate action – immediate rehabilitation or renewal.	0 to 10%

Condition State	Subjective Rating	Description	Action
0	Not Rated		N/A
1	Good ('as new')	Free of defects with little or no deterioration evident	No action required in foreseeable future
2	Fair	Free of defects affecting structural performance, integrity, and durability Deterioration of a minor nature in the protective coating and/or parent material is evident	No action required until at least next programmed inspection
3	Poor	Defects affecting the durability/serviceability which may require monitoring and/or remedial action or inspection by a structural engineer Component or element shows marked and advancing deterioration including loss of protective coating and minor loss of section from the parent material is evident Intervention is normally required	Action required prior to next programmed inspection
4	Very Poor	Defects affecting the performance and structural integrity which require immediate intervention including an inspection by a structural engineer, if principal components are affected Component or element shows advanced deterioration, loss of section from the parent material, signs of overstressing or evidence that it is acting differently to its intended design mode or function	Action required as soon as possible.
5	Unsafe	This state is only intended to apply to the overall structure rating Structural integrity is severely compromised, and the structure must be taken out of service until a structural engineer has inspected the structure and recommended the required remedial action	Action required before bridge can be returned to service

3.5.1 Condition Inspection Routine

INSPECTION DESCRIPTION	RATE
Pits and Stormwater Drains	Annually

3.6 Attribute Collection

Asset staff will utilise Confirm Connect to check current asset attribute data and update as necessary whilst in the field assessing/visiting an asset (i.e., for a condition inspection) New assets will be recorded in confirm based on design specifications and then checked and updated in the field. Asset Attribute data collection will be in line with mandatory data collection requirements.

3.7 General Asset Reporting

Asset staff are required to provide annual asset reporting for valuations and grant application requirements. These specific reports include but are not limited to:

- Drainage asset listing including attributes.
- Drainage spatial mapping.
- Drainage condition report by class.
- Drainage maintenance report.

4 Depot Operations

The core responsibilities of council's depot operations with relation to drainage is the identification of drainage defects and the rectification of those defects through routine and responsive maintenance. Defects are identified through an annual inspection process and via the customer request system and assessed against intervention definitions.

4.1 Defect Definition

The following table is used to identify if any defect exists when undertaking a drainage defect inspection.

Should a defect be identified it is logged as a defect within Confirm Connect which will trigger the creation of the job for works to be undertaken to rectify the defect identified.

Pipelines

- Structural Defects
    - Cracking
    - Fracturing
    - Displaced joint.
    - Deformation
    - Surface damage
    - Erosion of the invert
    - Protective lining failure
    - Breaking
    - Collapse
- Serviceability and other Defects
    - Siltation or Debris
    - Corrosion due to acid-sulphate attack
    - Defects in lining where applicable
    - Obstruction
    - Root intrusion
    - Infiltration/Exfiltration
    - Defective connections/Junctions
    - Vermin
    - Aesthetics – graffiti etc

Access Chambers

- Cracking or fracturing
- Surface damage including the benching of the inverts.
- Corrosion due to acid-sulphate attack
- Breaking or deformation
- Siltation or debris
- Vermin

- Opening or lid defects
- Step iron defects (where applicable)

Inlets and outlet structures (Gully Pits, Field Inlets)

- Cracking or fracturing
- Surface damage
- Breaking or deformation
- Siltation or debris
- Vermin
- Backstone and lid defects
- Inlet and outlet grate defects including corrosion, blockage, deformation.

Open Lined Channels

- Cracking of lining or collapse
- Joints – Deformation, opening, displacement.
- Sediment
- Vegetation
- Safety Fencing
- Aesthetics – graffiti
- Inlet/Outlet structure damage

4.2 Defect Inspection Routine

The following table outlines the defect inspection timeframe intervals. Based on criticality rating, determined using process as per IPWEA PN 05 – 7.0 Risk and Criticality

Likelihood of Failure Rating Table (Coarse Condition Rating) – Indicative Only		
Description	**CCR**	**Suggested Inspection Frequency**
Assets greater than 70 years old or Assets > 50years in saltwater environment or Steel or aluminium pipe/arches or Plastic or other material relined pipes or Assets in highly reactive soil condition or acid sulfate soils Assets that may have been subject to faulty construction practices such as cracking from improper compaction	5	1 - 5 years
Assets > 50 years old or Assets > 40 years old in saltwater environment or AC or earthenware materials	4	5 - 10 Years
Assets 30-50 years old or Assets in close proximity to major trees	3	10 - 15 Years
Assets 10-30 years old	2	15 - 20 Years
Assets < 10 years old	1	As need arises

Criticality Rating Table and Suggested Inspection Frequency – Indicative Only		
Description	**CR**	**Suggested Insp. Freq.**
These are SWD Systems where failure is the most disruptive and expensive to the community. They should be subject to more frequent and rigorous inspection to enable the organisation to proactively plan any identified maintenance or remedial activities. The following are examples of such criticality: • SWD systems under major buildings or major structures • SWD systems serving a CBD precinct • SWD Systems providing drainage to major transport corridors • SWD systems comprising pipes of > 1200mm diameter and > 4.5m depth	5	1 - 5 years
These are SWD Systems where failure is likely to be less disruptive but still of significance to the affected community. They require less frequent inspection which again should drive proactive maintenance and remedial action. The following are examples of such: • SWD systems located under buildings or structures • SWD Systems providing drainage to built-up • commercial or industrial precincts • SWD Systems providing drainage to sub-arterial transport corridors • Remaining SWD systems comprising pipes of > 900mm diameter, all depths • SWD systems comprising pipes of 600mm to 900mm diameter and > 4.5m depth	4	5 - 10 Years
These are SWD Systems where failure is likely to be moderately disruptive to the affected community. They require even less frequent inspection however such should still drive proactive maintenance and remedial action. The following are examples of such criticality: • SWD systems providing drainage to moderate density urban development • SWD Systems providing drainage to collector/distributor road transport networks • Remaining SWD systems with depth > 3 metres	3	10 - 15 Years
These are SWD Systems where failure is likely to be of low significance in terms of disruption to the affected community. They require even less frequent inspection however such should still drive proactive maintenance and remedial action. The following are examples of such criticality: • SWD systems providing drainage to low density urban development • SWD Systems providing drainage to local road transport networks • Remaining SWD systems with depth < 3 metres	2	15 - 20 Years
These are SWD Systems where failure is likely to be of very low significance in terms of disruption to the affected community. They require infrequent inspection, triggered by complaint or evidence of a problem. The following are examples of such criticality: • SWD systems providing drainage to parks and open space where overland flow escape paths exist that significantly reduce any hazard to property or community users	1	As needs basis

- Preventative maintenance includes proactive maintenance and planned maintenance. Simple maintenance tasks
- Reactive maintenance includes corrective maintenance and unplanned maintenance. This will extend the life of asset instead of further deterioration.

4.3 Drainage Maintenance

Drainage Maintenance is triggered via response to a compliant, enquiry or event (reactive maintenance) or is routine in nature, based schedule of maintenance events.

Drainage inspections are aligned with Road Management Plan schedule.

4.3.1 Routine Maintenance

Routine maintenance is scheduled maintenance applied to a drainage outside of reactive maintenance, where a drainage maintenance team will visit a drain onsite and complete any maintenance works required on the drainage where any defects exist outside of intervention levels.

4.3.2 Reactive Maintenance

Reactive drainage maintenance is undertaken by the depot operations team. It is packaged via a works coordinator who distributes jobs using Confirm for execution by crews in Confirm Connect based on identified defects through the inspection process.

5 Engineering and Projects

5.1 Drainage Intervention Definitions

The purpose of drainage intervention definitions is to describe the level of a defect which subsequently requires maintenance to rectify.

The following table outlines the response time to a drainage defect dependant on the road hierarchy that the drain resides within. Roads with higher utility are graded with higher response objectives specific to items requiring maintenance, refer to Item 4.2.

Intervention response times apply from the time of defect identification by council that exceeds the stated intervention level. Identification by Council may be through proactive inspection, reactive inspection following a customer request, or other responsive notification. Where an interim response has been made, the intervention response time shall apply from the time the interim response is completed.

Where multiple defects exceeding intervention levels are identified, intervention shall be prioritised in asset hierarchy order. Where resources are constrained (availability of funds, materials, specialist contractors or specialist equipment), the intervention response times may be extended subject to risks being managed through temporary treatment provisions.

For dwelling and property access roads that are of natural surface or without formation, the intervention standard for natural surface road or track shall apply regardless of the road's hierarchy.

The identification of a defect that exceeds the stated intervention level does not oblige Council to upgrade or maintain the asset to a standard higher than that which it was constructed.

Refer to Road Structures Inspection Manual 2022 [PDF 17.9 Mb] Part 4 Condition State Guidelines and Photographs.

Council endeavours to identify defects that exceed the stated intervention thresholds. Where intervention thresholds are exceeded, treatment will be undertaken in accordance with the timeframes identified and subject to available resources.

5.2 Renewal and Capital Works Planning

- Council drainage assets approaching end-of-life or no longer meet community needs, will be considered for renewal.
- Priority of renewal will be determined based on the following factors:
  - Average traffic volume
  - Significance of the asset to the surrounding road network (are there nearby alternative routes?)
  - Significance of asset for agricultural and other key industries
  - Serviceability of the existing structure
  - Date from which the asset has been identified as eligible for renewal.

- Renewal of drainage assets will consider foreseeable road network growth, and potential expansions of asset use in the future. XXXXX will be designed to meet all current standards and industry best practice documents, including:
    - AS 4058 – 2007 Precast Concrete Pipes
    - AS 3725 – 2007 Design for Installation of Buried Concrete Pipe
    - AS 4130 Installation of polyethylene pipe for pressure applications
    - AS 5065 Polyethylene and polypropylene pipes and fittings for drainage and sewerage applications
    - AS 2032 Installation of PVC pipe system
    - Infrastructure design manual
- Risk Assessment based on priority of renewal factors by engineers.
- Decision matrix based on the priority of renewal factors with relevant scaling decided by the engineers.

5.3 Renewal Project Management

Drainage renewals will be undertaken as individual projects. Ararat Rural City Council Engineering staff will be responsible for overseeing successful project completion, in accordance with industry best practice standards for project management, and this document.

Key stages of the project are:

- Monitor drainage regularly up to engineers' specification.
- Survey of the drainage.
- As constructed documentation.

6 Contracts and Procurement

6.1 Tender Process

The tender process for all asset management types will be in accordance with Council's Procurement Policy. Procurement Policy FINAL 30 May 2023.pdf

6.2 Financial Tracking of Renewal Projects

Financial Tracking of contracts is undertaken through Council's financial system and associated tracking numbers.

6.3 Project Milestone Reporting

Project Milestone Reporting will be undertaken in compliance with funding milestone requirements and contract hold points and key performance indicators.

7 Finance and Valuations

This section references councils Valuations Policy – Major Asset Classes

7.1 Asset Valuation

Ararat Rural City Council has a responsibility to financially represent its network of drainage assets to fair value. Drainage valuation is conducted by assigning unit rates to those classes on an annual basis based on real world values and multiplying the area of each individual drainage structure to the assigned unit rate.

7.2 Asset Capitalisation

All assets captured and represented within the Asset Management System are capitalised assets within councils financial reporting.

7.3 Asset Written Down Value

The current written down value of the drainage asset is defined as the current cost of replacement minus the amount the asset has already depreciated.

7.4 Recurrent and Non-Recurrent Assets

All drainage assets are treated as recurrent and financially planned for as a renewal asset.

7.5 Asset Depreciation

Drainage Asset Depreciation is the value ($) of the already consumed portion of the drainage asset. For example, if the drainage asset is expected to last 50 years and it is currently 25 years old then it is determined that 50% of the asset is already depreciated. It is calculated in by taking the current unit rate of replacement and multiplying it against the unit rate of replacement connected to the asset and then against the percentage of the asset already consumed.

7.6 Representation of Asset Costings within Finance System

Drainage renewal projects are tracked within the council finance system using ‘tracking categories. Maintenance and general works expenses are tracked at a network layer within the finance system; however, individual works costs can also be reported through the Asset Management System (Confirm).

8 Customer Service

8.1 Complaints

Complaints will be logged via Council's customer request management system (CRMS).

8.2 Request for Service

Customer request for service will be logged via Council's customer request management system (CRMS). Examples of request for service specific to drainage are:

- Blocked drains
- Overgrown surrounds
- Damaged pits
- Damaged pipes

8.3 Feedback

General feedback is captured by customer service via email.

8.4 Customer Request Management System (CRMS)

Council's customer request system (CRMS) will be used to report and record customer/public requests related to Council assets, including drainage. Customers can log a request online, or phone the request into customer service, who log the request on the customer's behalf. The request is then assessed by the responsible member of staff, and work scheduled accordingly. Once the request is complete, Council staff will notify the customer.

9 Risk/Occupational Health and Safety

9.1 Safety and Risk Management

All management and operational work related to asset management (including risk, incident reporting and safe work methods) will be undertaken in accordance with Council's OH&S Policy and associated procedures. OHS Policy FINAL 19 January 2021

10 Governance/CEO's Office

10.1 Management of Plan

This plan will be adopted and managed on a formal four-year cycle of review.

This plan will be stored under councils Governance SharePoint policy manual, owned by the Office of the CEO and be subject to out of cycle review at the discretion of the CEO.

10.2 Audit

This plan will be available for all standard audit requirements.

11 Organisational Transformation

11.1 Asset Digital Monitoring

Taking a 'Smart Cities' approach Ararat Rural City Council looks to take advantage of technology that supports the use of Asset Monitoring in particular the ability to:

- Enhance the accuracy of estimated remaining useful life.
- Enhance the accuracy of current asset condition.
- Enhance the accuracy of measuring asset health.

It is Ararat Rural City Councils intent to trial and implement storm water sensor technology on problem drains within the municipality, to support our responsiveness in this space.

11.2 Asset Alerting Services

Taking a 'Smart Cities' approach Ararat Rural City Council looks to take advantage of technology that supports the use of automated alerting specific to council assets.

Current examples of this include alerting when a public bin along Barkly Street reaches a fullness threshold, or when certain storm water systems exceed volume and flow thresholds.

It is Ararat Rural City Councils intent to trial and implement this technology where possible.

11.3 Public Data Access

Ararat Rural City Council is currently undertaking an assessment to establish additional data sets related to drainage that may be considered for future public access including:

- Condition.
- Attribute.
- Defect.
- Maintenance.
- Financial.
- Spatial.
- Civil and Design.

11.4 Predictive Asset Management

The Rural Councils Transformation Program is a state government funded initiative that is funding the current development of Ararat Rural Councils predictive asset management platform. The platform is intended to have development completed in Q3 2023 ready for testing and organisational use in Q4 2023. The core functions of the predicative asset management platform are:

- Analytics at both a network and individual asset level to determine if useful life estimates are trending accurately to current useful life valuation predictions.
- Asset in the annual construction of asset financial valuations for calculated assets.

- Forward predict a rolling 10-year roads and bridge capital works program based on current degradation rates of council assets.
- Detailed reporting including spatial insights across asset classes.

11.5 Key Performance Indicator Platform

The management of all Council's assets will be measured and tracked via Council's service level key performance indicator system within PowerBI. This system will enable monthly tracking of data identified as critical to success related to the Assets service. This key performance indicator information is viewed and monitored by the CEO.