

# Asset Management Planning Challenges in the Regional District of Kootenay Boundary

James Chandler - RDKB  
Bill Hart - AECOM

---

## Meet our team



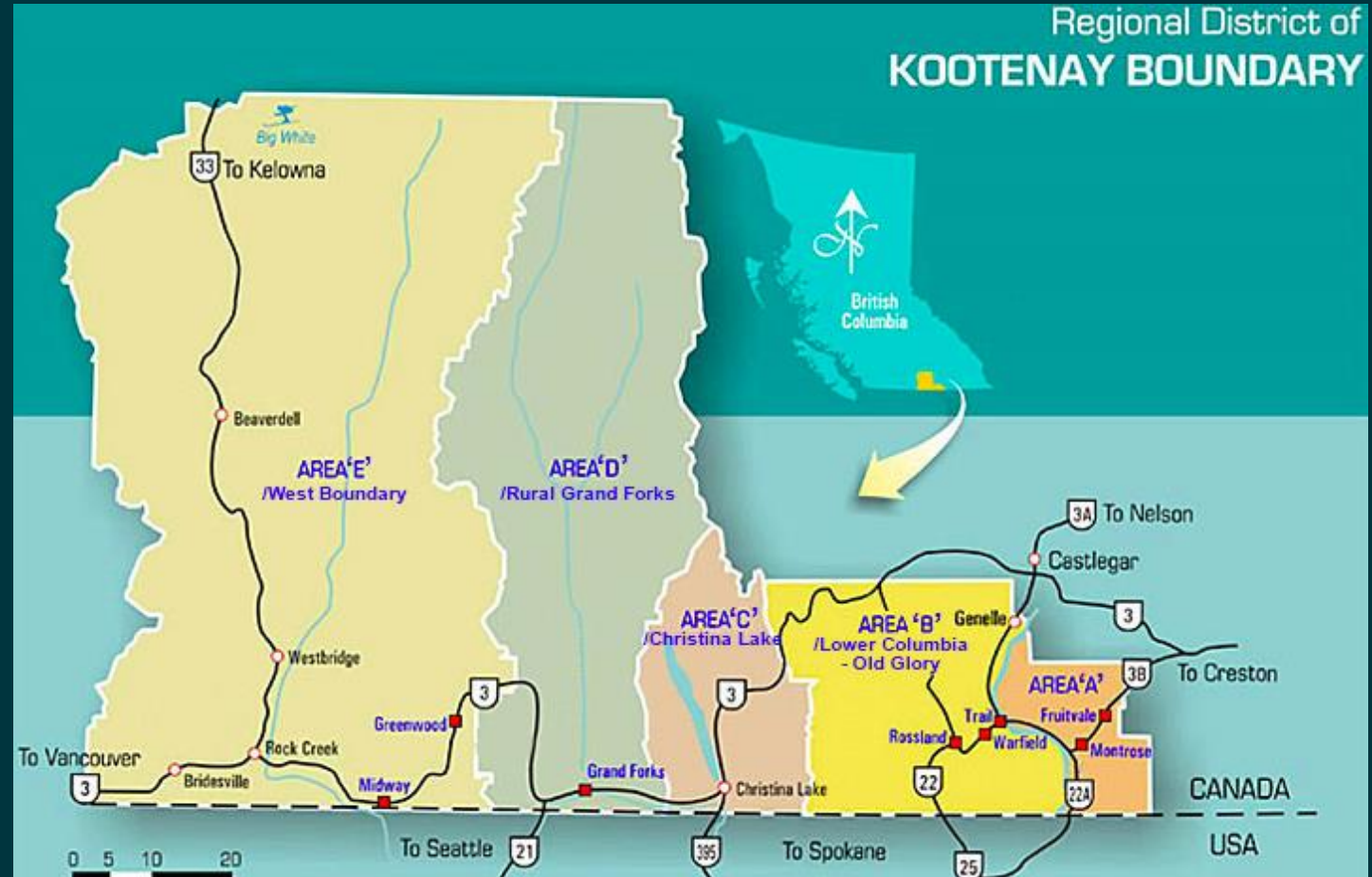
James Chandler, P.Eng.  
Deputy CAO / GM of Operations  
RDKB



Bill Hart, P. Eng., M. Eng., IAM Cert.  
Senior AM Consultant

# Agenda

- 01 Introductions
- 02 Background and Objectives
- 03 Methodology and Summary
  - State of Infrastructure
  - AM Strategy
- 04 Outcomes and Results
- 05 Q&A

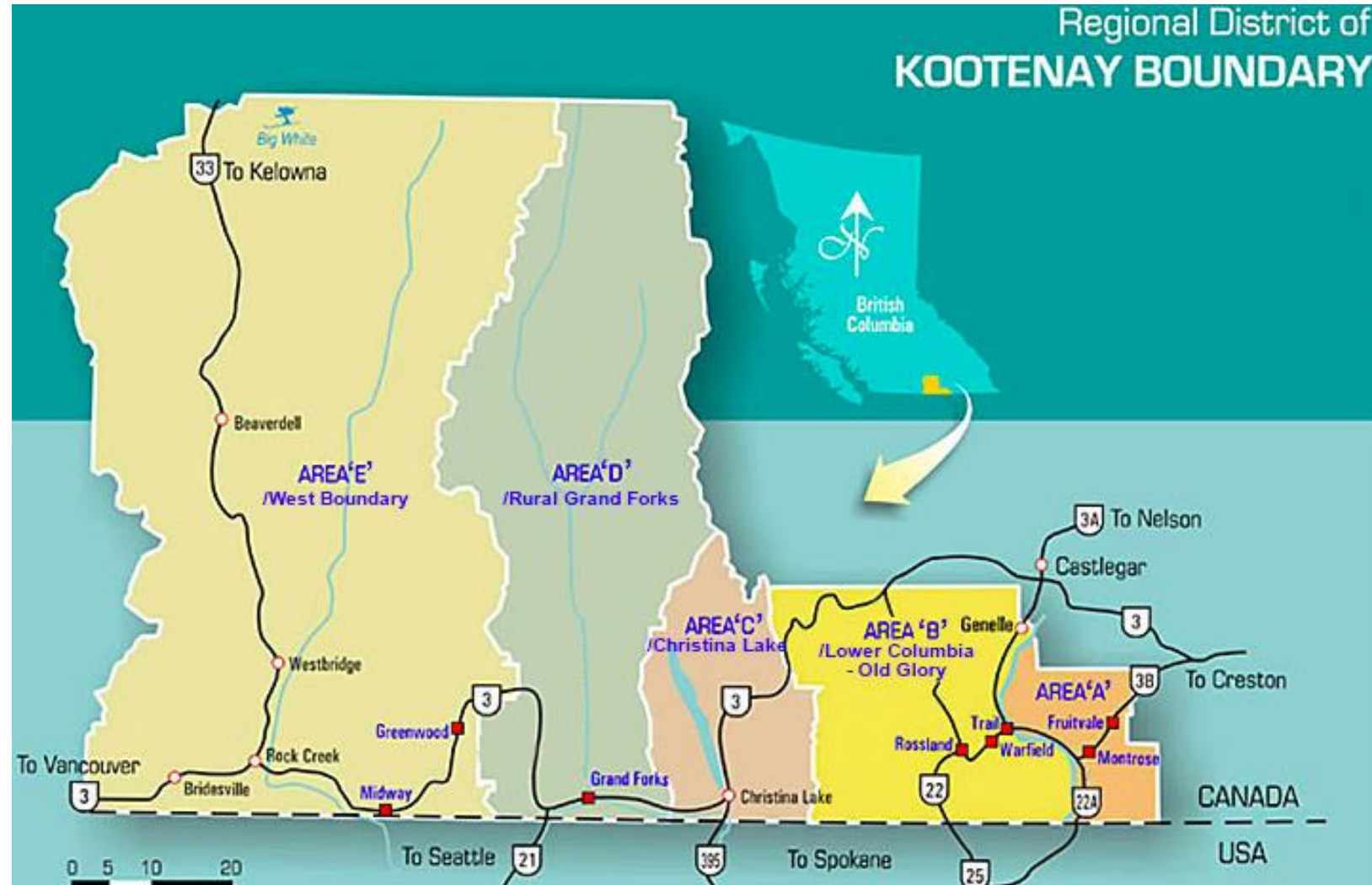




# Background and Objectives

# RDKB – The Facts of a Rural Regional District

- Located in the southeastern BC interior
- 1 of 27 regional districts in BC
- Population of 34,080 (8<sup>th</sup> lowest out of BC)\*
- Area of 8,081 km<sup>2</sup>, density of 4.2 per km<sup>2</sup>
- Composed of 8 municipalities and 5 electoral areas
- Governed by Board of Directors
- Provides both inter-municipal and sub-regional services



\*Source: Statistics Canada, Population Estimates by Census Division, released 2023-01-11

# The Regional District owns a Variety of Core and Non-core Assets (72 Service Areas)



## Utilities

- Water
  - 57 km of Main, 5 Reservoirs, 7 Pumphouses, 3 WTP, etc.
- Wastewater
  - 12 km of Gravity Main, 9 km of Pressure Main, 3 Lift Stations, 1 WWTP, etc.



## Environment (Solid Waste, Environmental Control)

- 3 Landfills
- 8 Transfer Stations
- 9 Leachate Ponds
- 300 m Monitoring Wells
- 9,097 Household Bins



## Public Service (Fire & Rescue)

- 14 Fire Halls
- \$10 M of Fleet, Apparatus & Equipment

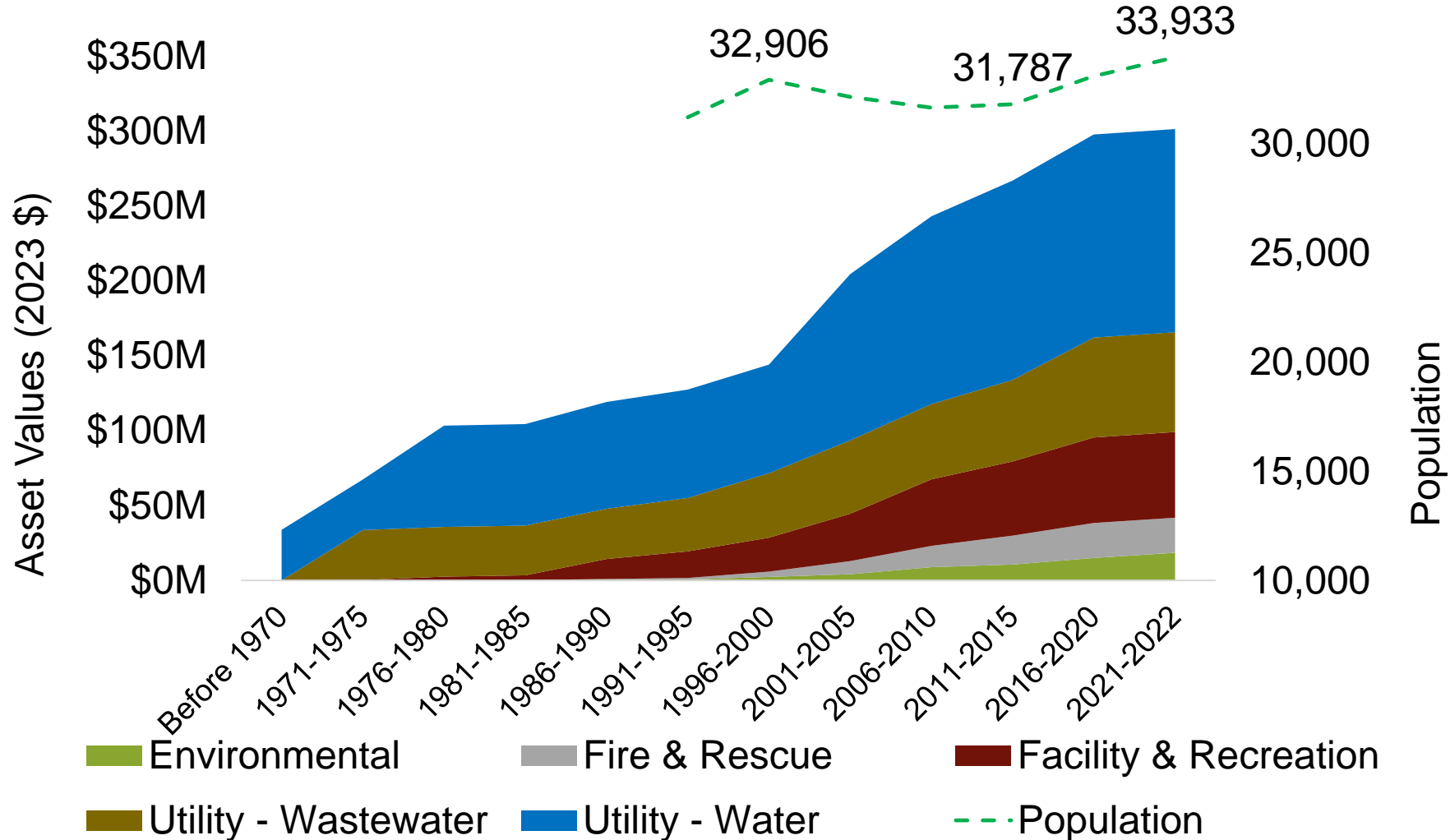


## Facilities and Recreation (Facility, Building, Open Space)

- 12 Buildings
- 5 Outdoor Facilities
- 13 km Trails
- 10 Campsites

# Issues and Constraints

- Aging infrastructure
- Need to have a consistent approach to asset management across all services
- Budgetary constraints for each service



# Why AM at RDKB? - Sustainable Provision of Services



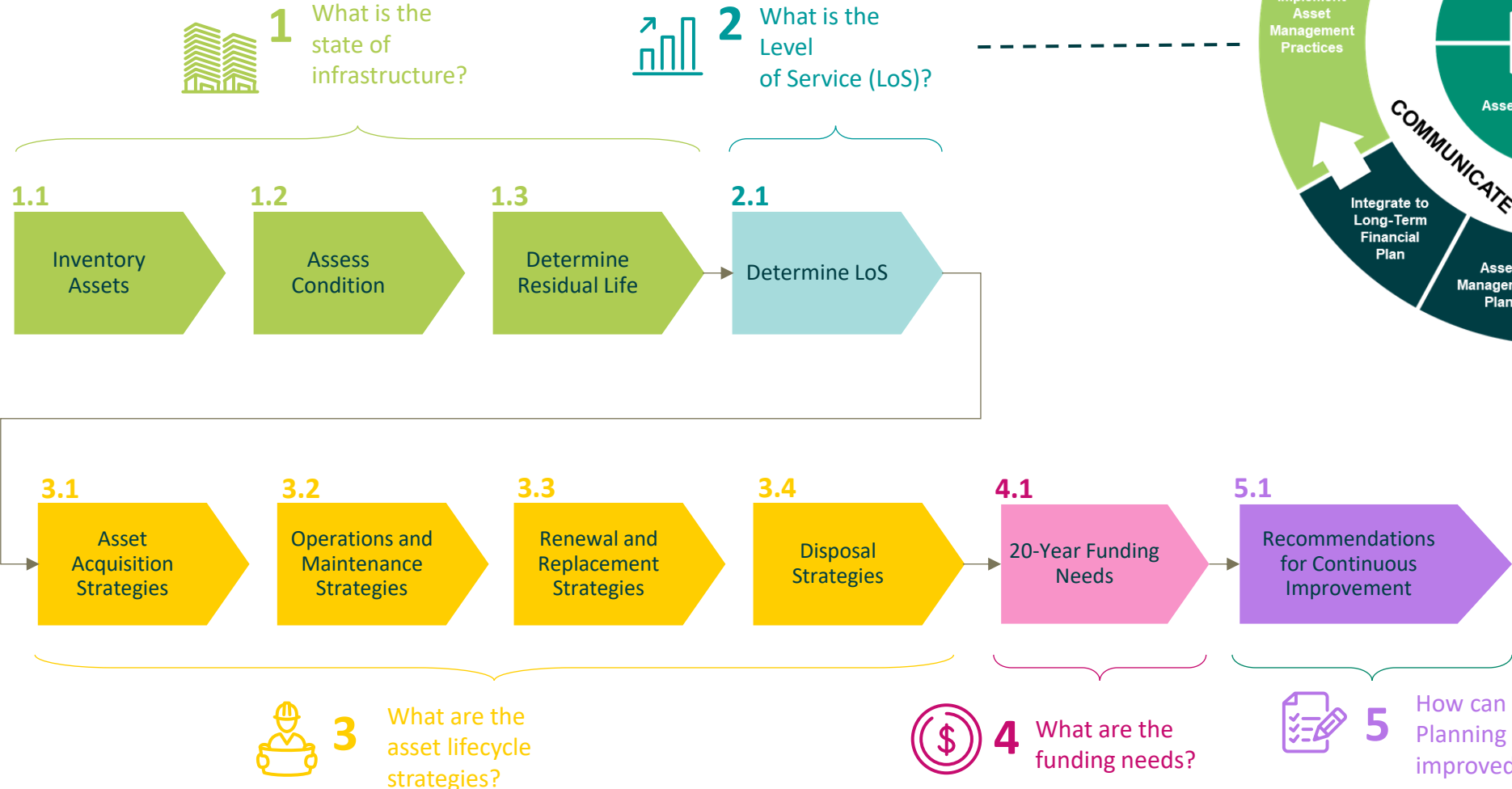
**Organizational and Governance Excellence**

**AREAS OF FOCUS**

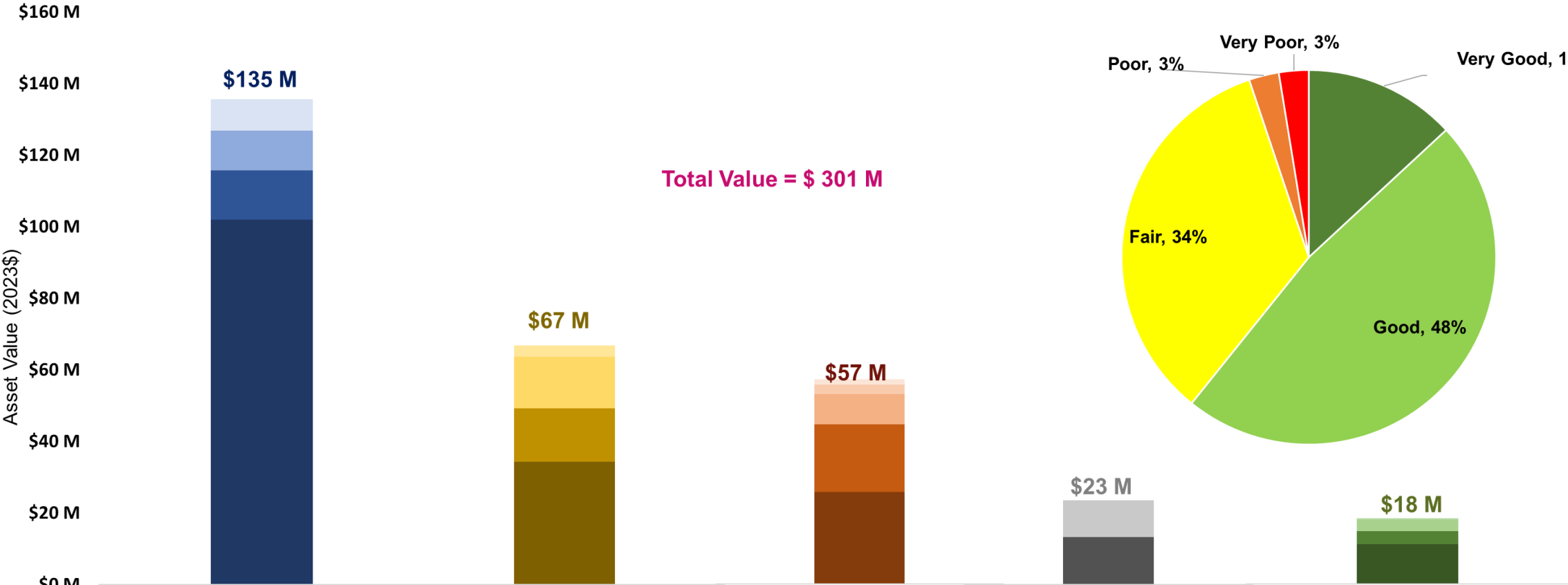
- We advocate for issues affecting our region
- We support beneficial technology and staff development
- We focus on clear messaging through diverse channels to inform and engage residents
- **We ensure the fiscally responsible management of our assets and services**
- We collaborate and share resources across the region
- We commit to modeling outstanding governance

# Methodology and Summary

# Asset Management Methodology



# State of Infrastructure – Asset Condition and Valuation



- Other (Intake, Hydrant, Service, Street Lights)
- Treatment
- Storage
- Distribution
- Other (Outflow and Other)
- Wastewater Treatment Facility
- Collection
- Interceptor
- Other (Animal Control and Other)
- Community Facility
- Open Space(Park, Field Park and Playground, Cammground, Trails)
- Corporate
- Recreation Facility
- Fleet, Apparatus & Equipments
- Community Facility
- Other(Invasive Species Control, Waste Management Software and Pest Control)
- Transfer Station
- Organics Processing Facility

# AM Strategy – Level of Service (LoS)

Asset Class	Customer Level of Service (How do Customers Experience the Service?)	Technical Level of Service (What Attributes of Assets are Required to provide Customer LoS?)
Utilities- Water	# of Unplanned System Interruptions / 100km Length	Cost of Main Break Repairs as % of Total O&M Cost
Utilities- Sewer	# of Odour Complains	Chemical Costs
Environment – Solid Waste	Average response time to Priority Code 1 service request	Cost of solid waste collection per household
Public Service - Fire	Beaverdell Fire Department Service Level	Percentage of Fire & Rescue Equipment in Very Good or Good Condition
Facilities and Recreation	Average response time to response to service request 100%, <24 hr	% Of facilities and parks budget allocated to O&M



## External Factors

- Regulatory Changes
- Climate Change
- Aging Infrastructure
- Land Use / Development



## Internal Factors

- Operational Changes
- Staff Availability
- Financial Resources
- Political Changes

# AM Strategy – FCM AM Maturity

**Levels 2-3:** Integration of Competence Into Daily Routines

**Levels 4-5:** Regular Monitoring and Continuous Improvement

**Current: 2** Some of the staff have basic AM training and a few have received asset-specific training

**Future: 4** Need to all the staff to receive basic AM training

**Current: 2** Some service areas have master planning documents in place; however, the planning process is siloed

**Future: 4** Need for tools to facilitate transparent and equitable cases for all assets while also understanding the potential risks and trade-offs associated

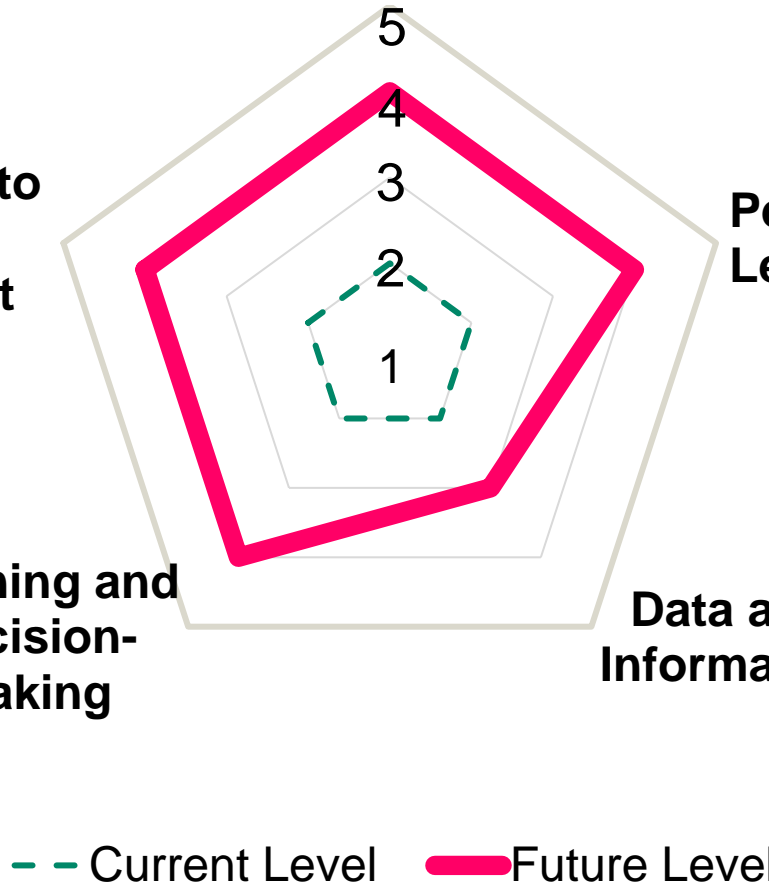
**Contribution to Asset Management**

**Planning and Decision-Making**

**Policy and Governance**

**People and Leadership**

**Data and Information**



**Current: 2** Service areas do have policies, but there is no dedicated official policy on AM

**Future: 4** AM policy will bring in the necessary understanding of the importance of AM, hence facilitating infrastructure renewal and replacement

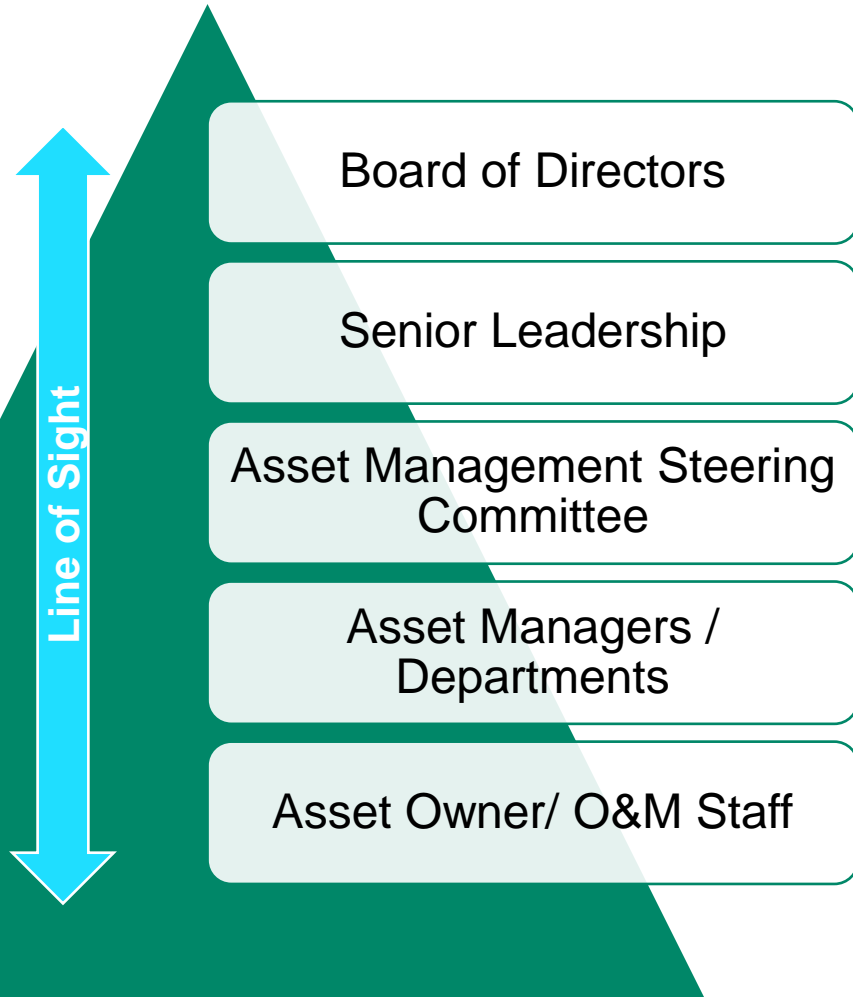
**Current: 2** Leadership / senior management have a good understanding of AM

**Future: 4** Need for a dedicated AM group/manager/ GIS personnel/team

**Current: 2** There is good GIS data in place for some of the assets

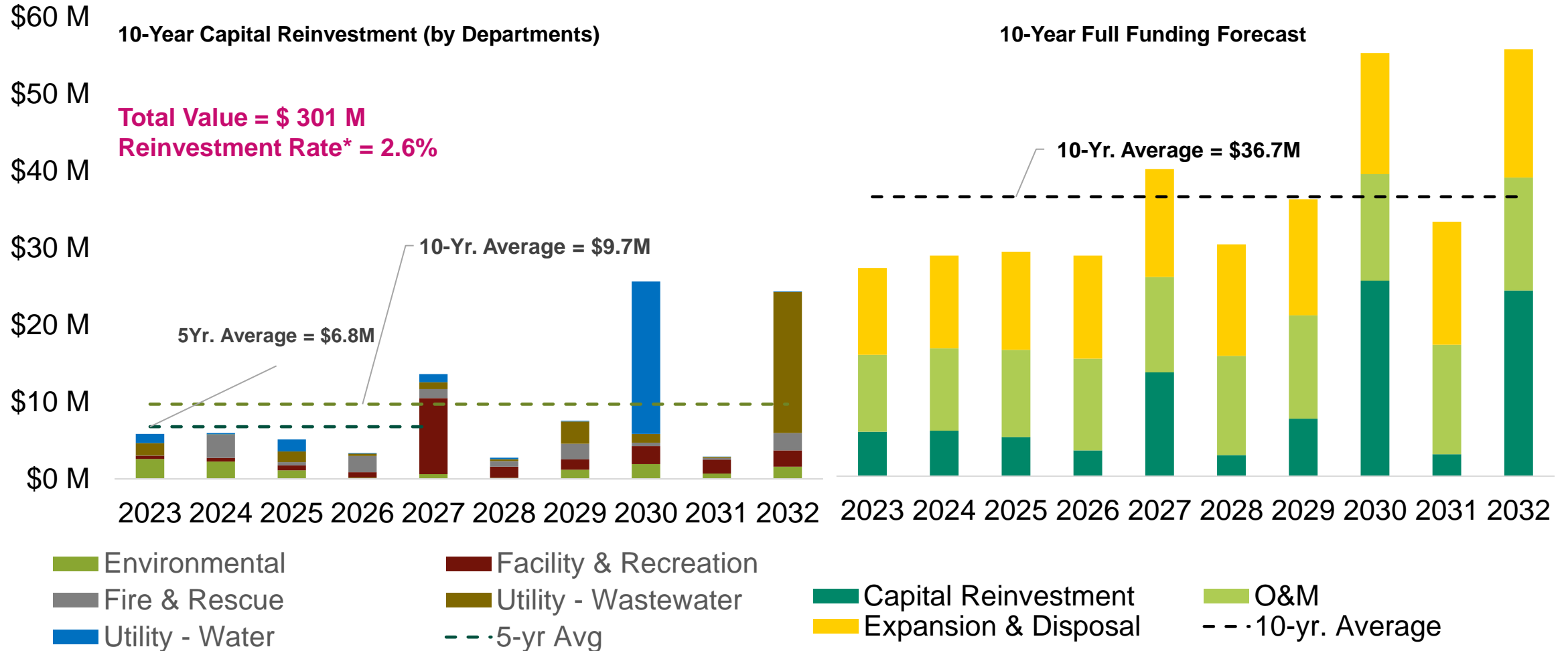
**Future: 3** Need for tools, such as GIS / CMMS and resources across all service areas to ensure consistency and maturity

# AM Strategy - RDKB AM Governance Model



Entity	Roles and Responsibilities
Board of Directors	<b>Approves the AM Policy</b> and ensures asset funding through the financial planning process. Is responsible for overseeing the effective management of assets to ensure it meets the community needs
Senior Leadership Team	Responsible for <b>providing the Region's Strategic Direction</b> to ensure that AM activities align with the strategic goals and objectives
Asset Management Steering Committee	Responsible for <b>maintaining the momentum of the AM program</b> by providing corporate oversight to ensure that the goal and directions are maintained and remain consistent with the overall corporate Strategic Plan. Liaison with AM specialists for AM Policy, Strategy, and Plan reviews
Asset Managers / Departments	<b>Develops AM work programs</b> , project timelines, resource allocation and project budgets towards achieving the directions, goals and objectives outlined in the AM Strategy
Asset Owner / O&M Staff	The operations and maintenance staff and tactical planning teams are responsible for the <b>day-to-day management of assets</b> , ensure assets function properly, conduct maintenance and inspections, and mitigate risks

# AM Strategy – Financial Needs

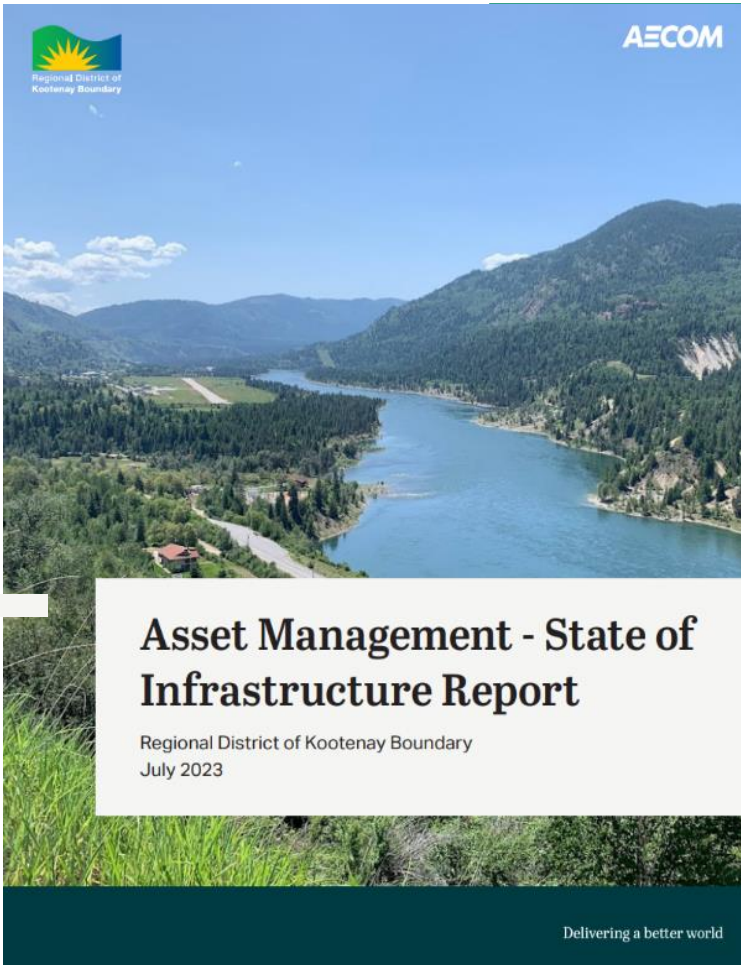


\*Reinvestment Rate is calculated by the 10-year average reinvestment divided by the 10-year average inflated total asset value

The background of the slide is a scenic landscape photograph. It shows a wide, blue river flowing through a valley. The river is bordered by lush green forests and rolling hills. In the distance, more mountains are visible under a clear blue sky with a few wispy clouds. A road and some buildings are visible along the riverbank in the foreground. A large, light green circular graphic is overlaid on the image, framing the central text.

# Outcomes and Results

# Current State: Our Understanding Today



---

1. Asset Inventory & Hierarchy

---

2. Expected Service Life & Age Summary

---

3. Condition Summary

---

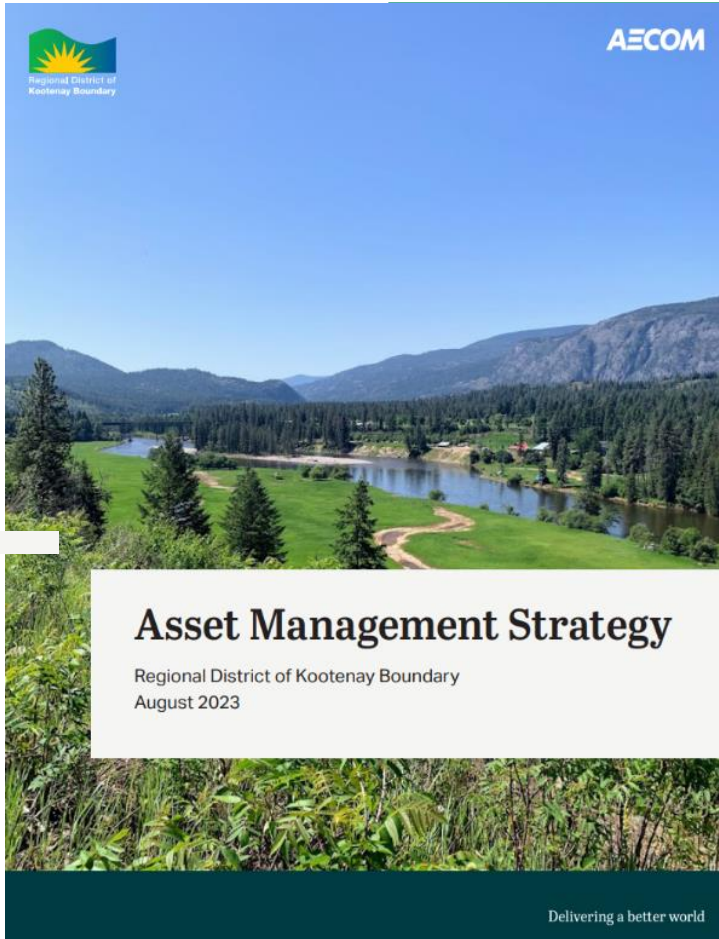
4. Asset Data Gap Analysis

---

5. Asset Data Management Best Practices

---

# What's Next: Asset Management Strategy



1. Regional District Context

2. AM Policy (Political buy-in for consistency in decision making)

3. Early Success (Reserve policy for specified services)

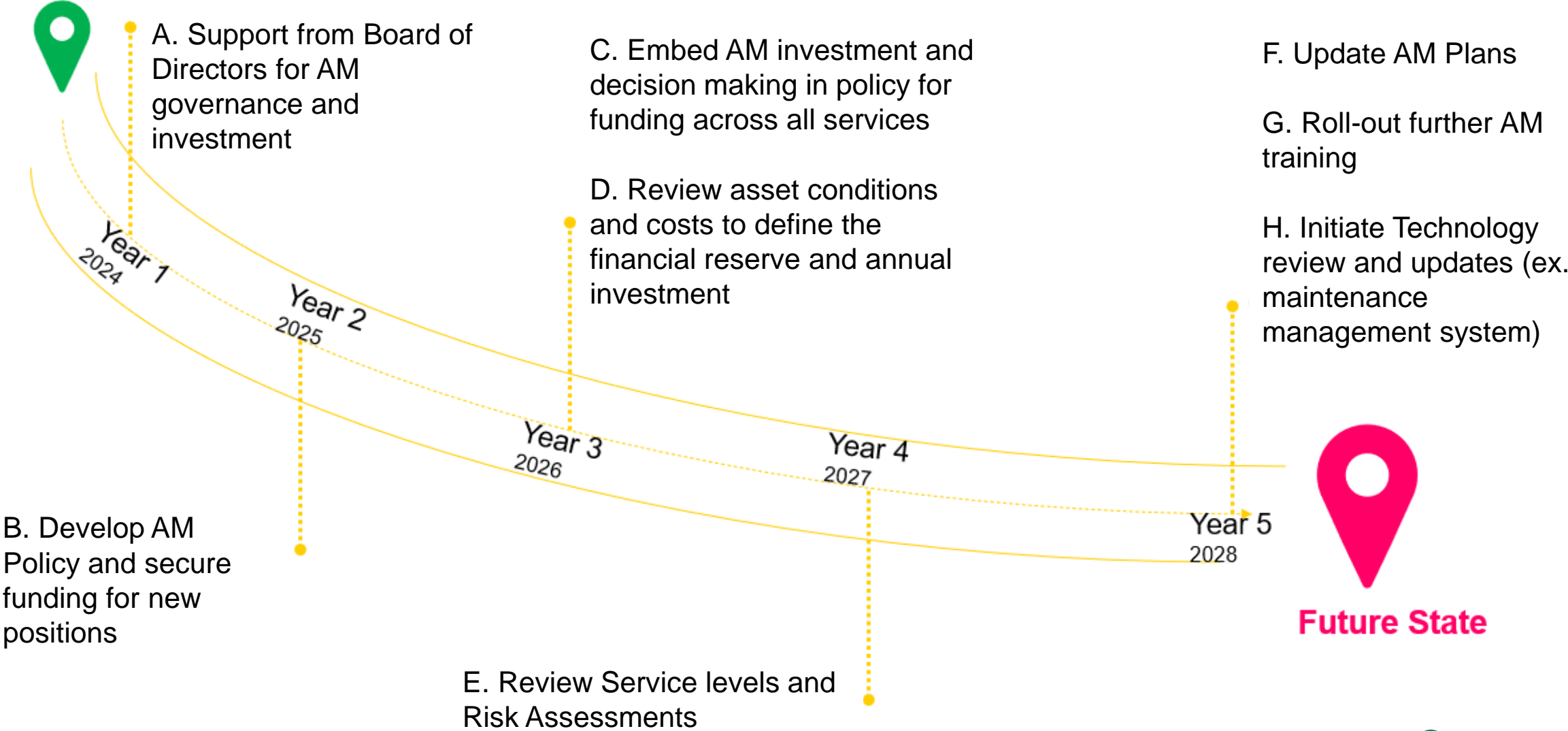
4. Commitment to Human Resourcing

5. Level of Service

6. Asset Financial and Lifecycle Strategy

# Improvement Initiatives to move to Future State of AM Maturity

## Current State



A large, blue, arch-shaped bridge spans across a deep valley. The bridge has a prominent arch structure with vertical supports underneath. The valley is filled with dense green forest, and the sky above is bright blue with scattered white clouds. The text "Q&A" is centered in the middle of the image.

Q&A