

Study Session: Asset Management 101

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Public Works: Asset Performance Manager

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What is it?

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Municipal asset management is a **coordinated approach** to managing our city's physical assets – things like roads, bridges, traffic signals, water pipes, water wells, wastewater lift stations, and stormwater facilities. These assets exist to deliver the **core services** our community relies on everyday.

But what is it *really*?

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Asset Management helps us answer four key questions:

1. **What assets do we own?** → Asset Registry
2. **What condition are they in?** → Condition Assessments
3. **What do we need them to do?** → Levels of Service
4. **How do we manage them responsibly over time within our budget?** → Capital Investment Strategy

The Vision!

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By 2028, establish a top-performing asset management program that supports American Public Works Association accreditation and benchmarks ISO55000 standards by adopting a **long-term perspective** and applying **consistent stewardship** aligned with Redmond 2050 to **realize maximum value** over the total life cycle of our long-lived infrastructure assets.

Things to know (it's not software).

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- Asset Management is a **coordinated business process** that involves various disciplines.
- Asset Management **involves resolving conflicting objectives**, risks, opportunities, and costs over varying time frames.
- Realizing value over an asset's life cycle **requires a long-term perspective** and consistent stewardship aligned with organizational objectives.

Why do it?

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Goal: Maximize the value our community receives from its assets at the lowest possible cost.

- **Enhanced Service Delivery:** More consistent and reliable public services (e.g., utility and transportation systems). Better asset data enables proactive maintenance and smarter investment decisions.
- **Optimized Use of Financial Resources:** Lower lifecycle costs through proactive maintenance and capital planning. Investments are based on asset condition, risk, and criticality—not just age or failure.
- **Extended Asset Life:** Infrastructure lasts longer and performs better. Scheduled interventions prevent premature deterioration and costly breakdowns.
- **Improved Risk Management:** Reduced frequency and impact of unexpected asset failures. Risks are assessed and prioritized systematically across all asset types.
- **Informed, Transparent Decision-Making:** Data-driven planning that is easier to justify to elected officials and the public. Asset management plans provide a clear rationale for prioritizing investments.

Why do it? (*continued*)

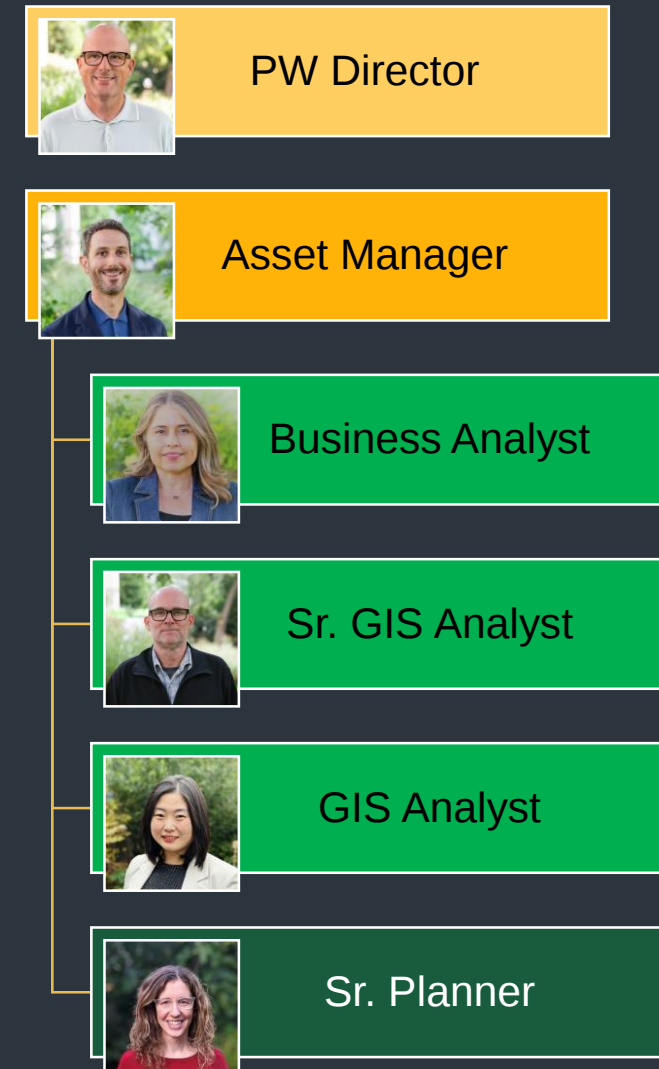
A municipal asset management system delivers **strategic, financial, and operational outcomes** that make infrastructure more **reliable, sustainable, and cost-effective**, while improving accountability and public trust.

- **Regulatory and Policy Compliance:** Improved alignment with federal, state/provincial, and local regulations. Asset data supports environmental, safety, and financial reporting requirements.
- **Increased Public Confidence:** Greater trust in municipal decision-making and long-term planning. Clear evidence shows that the city is being proactive and responsible.
- **Better Integration Across Departments:** Coordinated planning and execution between public works, finance, planning, etc. Asset management systems break down silos and support shared priorities.
- **Sustainable and Resilient Infrastructure:** Infrastructure is better prepared for growth, climate change, and funding shocks. Decisions consider long-term environmental, social, and economic impacts.

How do we build it?



(Figure 1.0: Redmond's Asset Management System)



(Figure 2.0: PW Asset Performance Management Team)

What risks will we mitigate?

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Asset Management **mitigates operational, financial, strategic, and reputational risks** by enabling more informed, proactive decision-making.

- **Asset Failure Risk:** Sudden breakdowns of critical infrastructure (e.g., water mains, bridges, roads). Regular condition assessments and preventive maintenance reduce the likelihood and impact of failures.
- **Public Health and Safety Risk:** Hazards from unsafe infrastructure (e.g., contaminated water, potholes, failing buildings). Timely inspections and repairs reduce exposure to safety hazards.
- **Financial Risk:** Unpredictable repair costs, inefficient spending, and budget overruns. Lifecycle costing and capital planning help allocate resources efficiently and avoid reactive, high-cost interventions.
- **Service Disruption Risk:** Interruptions in key services (e.g., transit, water, waste, emergency access). Service-level planning ensures assets support uninterrupted delivery.
- **Regulatory and Legal Risk:** Non-compliance with safety, environmental, and financial reporting standards. Asset data supports compliance with laws, permits, and audits.
- **Reputational Risk:** Loss of public trust due to poor infrastructure decisions or preventable failures. Transparency and performance reporting improve stakeholder confidence.

What risks will we mitigate? (*continued*)

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- **Strategic Planning Risk:** Misaligned priorities, inconsistent investment, and inefficient growth. Asset management links investments to strategic goals and service outcomes.
- **Data and Knowledge Risk:** Poor or incomplete asset data, or loss of institutional knowledge. Centralized systems store and standardize asset data for consistent use across departments.
- **Climate and Resilience Risk:** Infrastructure vulnerability to extreme weather or long-term climate change. Asset strategies integrate resilience planning and risk-based prioritization.
- **Deferred Maintenance Risk:** Backlog of aging assets leads to higher future costs and service declines. Routine maintenance planning spreads investment over time to maintain performance.

How does it scale to other depts.?

- Adopt a Municipal Asset Management Policy (MAMP)
- Publish the Public Works Strategic Asset Management Plan (SAMP)
- Replicate Public Works SAMP in other departments that manage assets
- Mature our governance model by engaging council, senior leaders, steering committees, and working groups

Enabling Resources

- What do we know we have?
 - Good base of asset data in our geospatial information system (GIS)
 - Operable Computerized Maintenance Management System (CMMS, “Lucity”)
 - Dedicated asset management team
 - The right culture and leadership support
- What do we know we don’t have?
 - Perfect inventory with zero defects
 - Levels of Service completely defined and tied to performance measures
 - Foundational asset management plans and policies published
- What’s needed to do it?
 - Continued support from leadership and council to realize the long-term benefits
 - Time
 - More sophisticated financial modeling (replacement values and cash flows)
 - Predictive maintenance tools enabled by artificial intelligence

How will we know it's working?

- **State of the Asset Report:** A future document that will be prepared for council once per budget cycle to report on the physical condition of city-owned assets through which we deliver core services to the community.
- **Infrastructure Scorecard:** A future, community-facing tool that will evaluate, communicate, and monitor the condition and performance of our infrastructure assets. It will serve as a summary dashboard to support strategic decision-making and public accountability.



Where are we?

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2024

Charter the Program, Set the Conditions

[COMPLETE] Key Deliverables: Program Charter, Municipal Asset Management Policy (Draft)



2026

Audit Performance, Adapt to Scale

Key Deliverables: Tactical Asset Lifecycle Management, Integration With Capital Planning Processes, Infrastructure Scorecard / State of the Asset Report



2025

Build Capability, Progress Planning

Key Deliverables: Public Works Strategic Asset Management Plan, "Big 4" Asset Management Plans, Municipal Asset Management Policy Adoption



2027

Scale

Key Deliverables: Deploy to Other Departments, Launch Public Facing Asset KPIs