

Low Budget Asphalt Maintenance

Risks and the Long Term
Implications for Asset Management

Alan Taggart

Director

Atkins Highways & Transportation

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Summary

- Current Challenges for highway maintenance
- Drivers for asset management
- Principles of asset management
- Adoption and implementation of asset management to manage budgets and risk
- Tools to support the management of budgets and risk

Challenges for highway authorities

Reduction in Resources

- Reduction in budgets
 - Revenue budgets reduced by up to 30%
 - Capital budgets 15% in real terms compared to last CSR
- Shortfall in funding £800m (ALARM 2012)
- Cost of severe winter weather £600m (ALARM 2012)
- Reduction in staff
- Challenges from competing services

Challenges for highway authorities

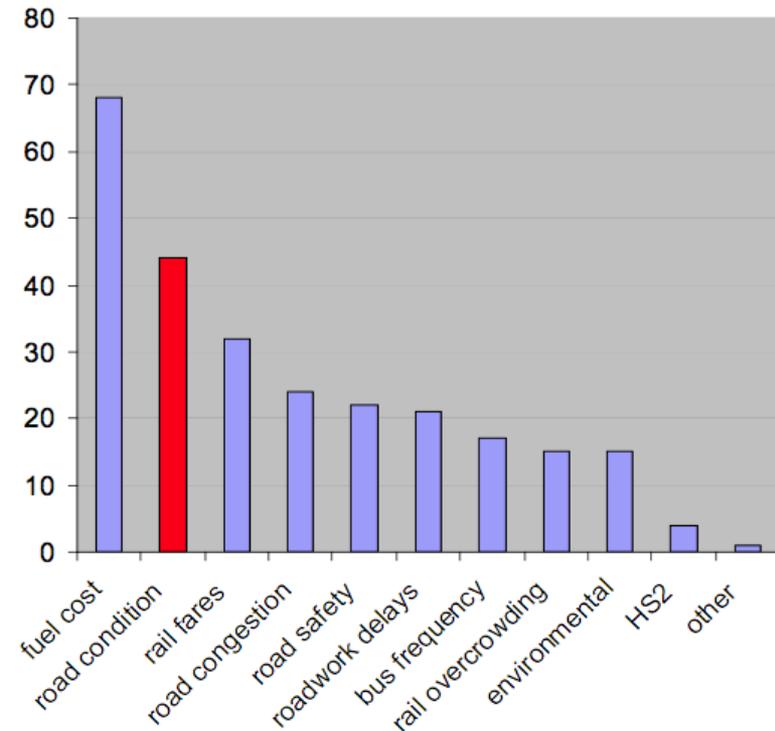
Maintaining a valuable asset

- Vital to economic and social wellbeing
 - Estimated value of HA asset £100bn
 - Estimated value of LHA asset £800bn
- £300m winter damage money
- Backlog in maintenance estimated at £9.8bn (ALARM 2012)
- Annualised budgets
 - Approach to budgets hinder efficient planning
 - 20% savings can be made through commitment to longer term planning (Cook)

Challenges to highway authorities

Public Perception

- One of the highest profile public assets
- Potholes highest profile defect
- LHA and stakeholder group surveys
- Public perception poor!
- Reflects on us as industry professionals



What do the Audit Commission Say?

Key recommendations for asset management

- Be clear on how to respond to current pressures and minimise WLC
- Ensure that service standards are set
- Communicate on approach (worst first and preventative maintenance)
- Apply asset management principles when making investment decisions
- Clear and focused AMPs and better inventory

What do CIPFA say?

Adoption of asset management

- can bring 10% efficiencies in highway maintenance
- Data is essential to decision making
- Lifecycle planning is fundamental

Whole of Government Accounts

- Comply with IFRS – the UK interpretation
- Asset Value is a function of condition and future maintenance needs
- Asset Management the basis for calculating Asset Value
- WGA – full audits due in 2012/13
- So, are you ready?

What do DfT say?

- TAMPS, Element 1 and Element 2 Funding
- Localism – your network, you are responsible for managing it.
- Transparency and accountability
- HMEP £6m made available to pump prime efficiency savings by LHAs
 - Asset Management and Procurement
 - Change Management
 - Communication
 - Benchmarking , Performance and Carbon
- All relate to asset management



Highways Maintenance Efficiency Programme

What is asset management?

Asset management is a strategic approach that identifies the optimal allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers

*CSS Framework for Highway Asset
Management*

What is asset management?

- ❑ **Strategic** - a planned and considered approach that takes a long term view of service requirements and corporate objectives
- ❑ **Optimal allocation** – identifies needs, justifies and prioritises work, and makes best use of resources
- ❑ **Management, operation, preservation and enhancement** – the complete lifecycle of the asset is considered when assessing needs and planning work
- ❑ **Current and future customers (including stakeholders)** – focused on delivering customer aspirations and requirements in the short and long term

Risks and Long Term Implications

All this is not new. So,

- How do we respond to these pressures?
- Where are we with asset management?
- Have we made the case for funding in highway maintenance?
- If we can't make the case how do we manage more for less?
- Do members and senior officers understand the link between funding and asset value?

Implementing Asset Management

Challenge

- How to measure demonstrate and realise the benefits
- Support the development of t the right skills and competencies to deliver asset management
- How to learn from others in delivering AM (good practice)
- How to ensure the right tools are being used, asset valuation, lifecycle planning

Good news - Highway Maintenance Efficiency Programme is addressing these issues

HMEP Asset Management Products

Products

- Revised Comprehensive Guidance
- Lifecycle Planning Toolkit
- Deterioration Modelling
- Updating Well-maintained Highways

These will

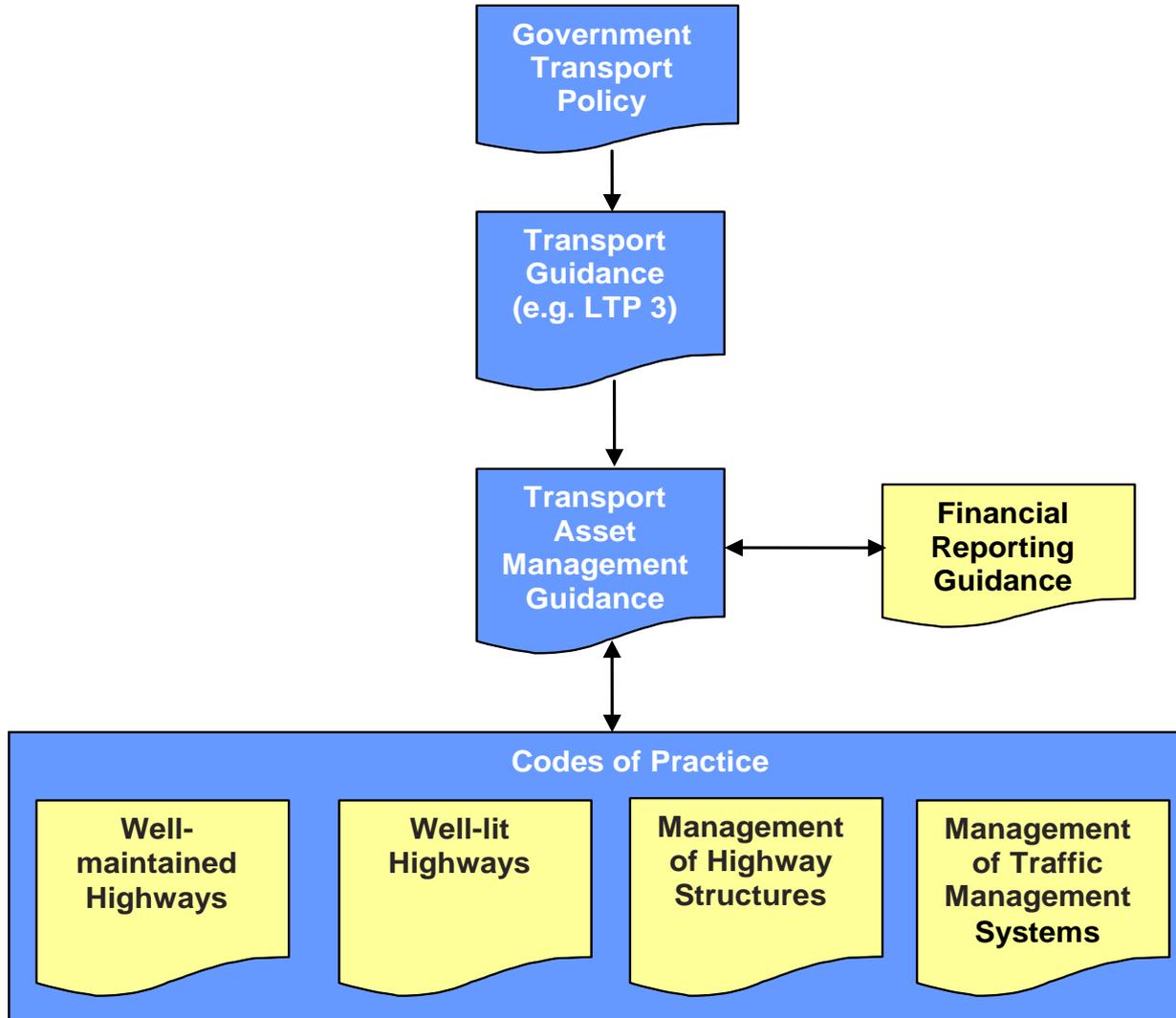
- Provide the tools for management of long term implications
- Provide tools to support decisions
- Assess risks with those decisions

Asset Management Guidance

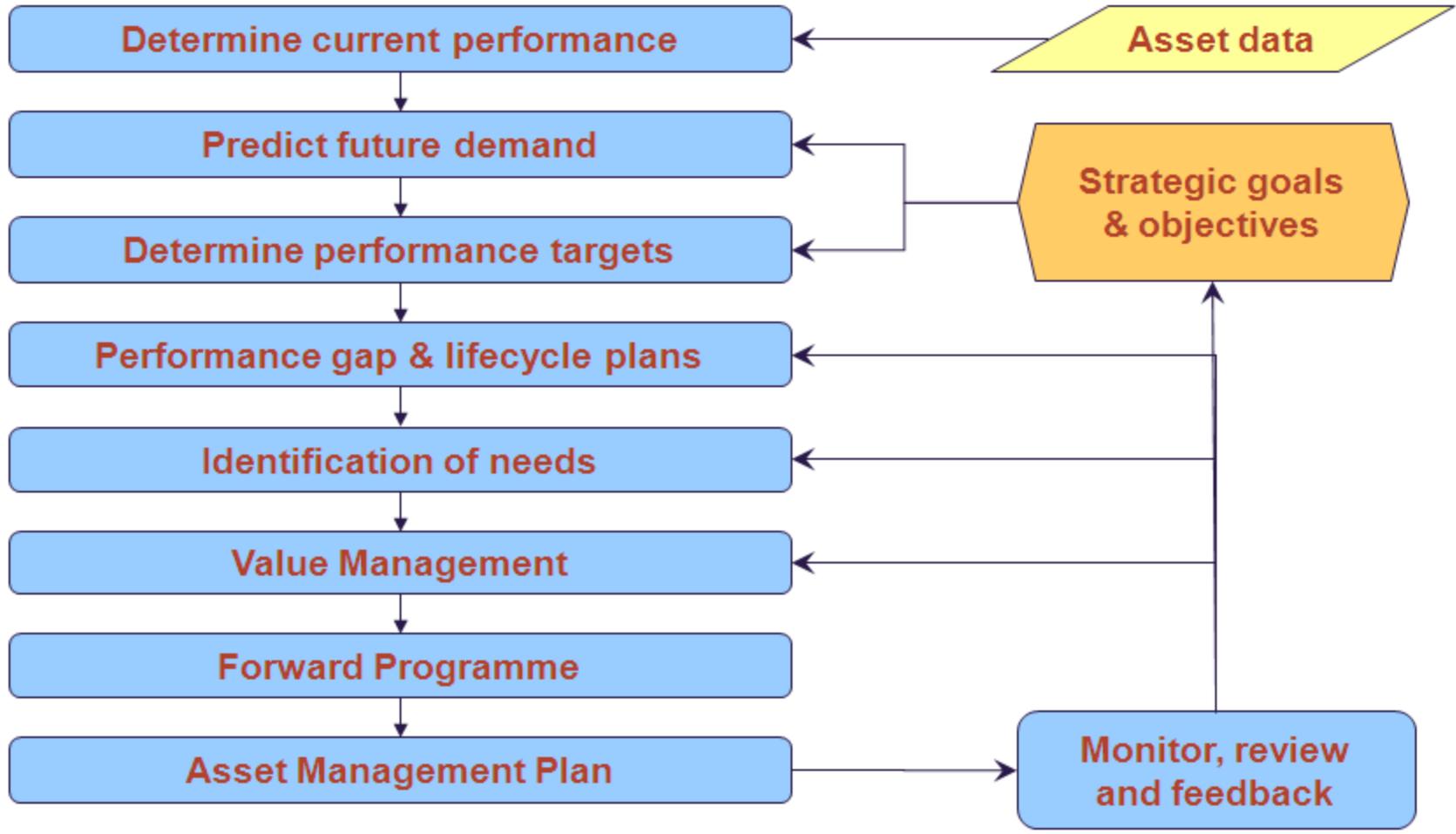


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Guidance Hierarchy



Asset management planning process



Principles

- Easy to follow
- Bring all other guidance documents together
- Complementary with Codes of Practice (guidance hierarchy)
- Suitable for “beginners” and “advanced users” – need to assess maturity level
- Focusing on long term view
- Focusing on levels of service
- Finding the right balance and managing the risks
- Supports the argument for investment

Target Audience

- Primarily focused for use by local authority asset management practitioners
- Can include Executive Summary written for Senior Managers/Decision Makers and Politicians.
- Executive Summary should link (but not replace) with “Are you ready for WGA?”

Lifecycle Planning Toolkit



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Managing Investment Decisions

A framework for investment decisions

- Network level tool

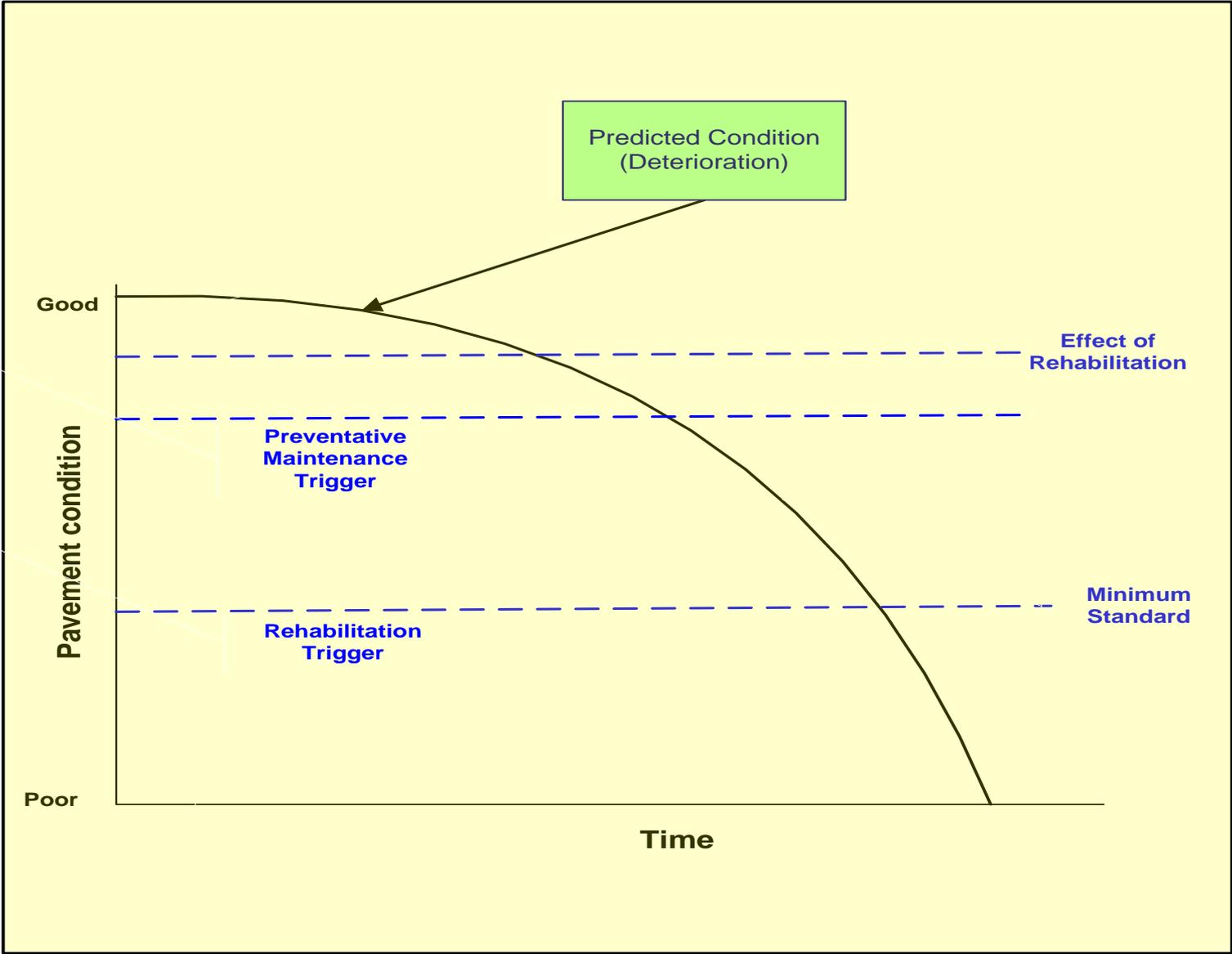
Determine effect of funding scenarios (up to 5 years, up to 30 years)

- Data required for lifecycle model
- Reliable data is needed for reliable decision making
- Right data for the right sites
- Knowledge of how the network sections deteriorates is key (separate HMEP package)

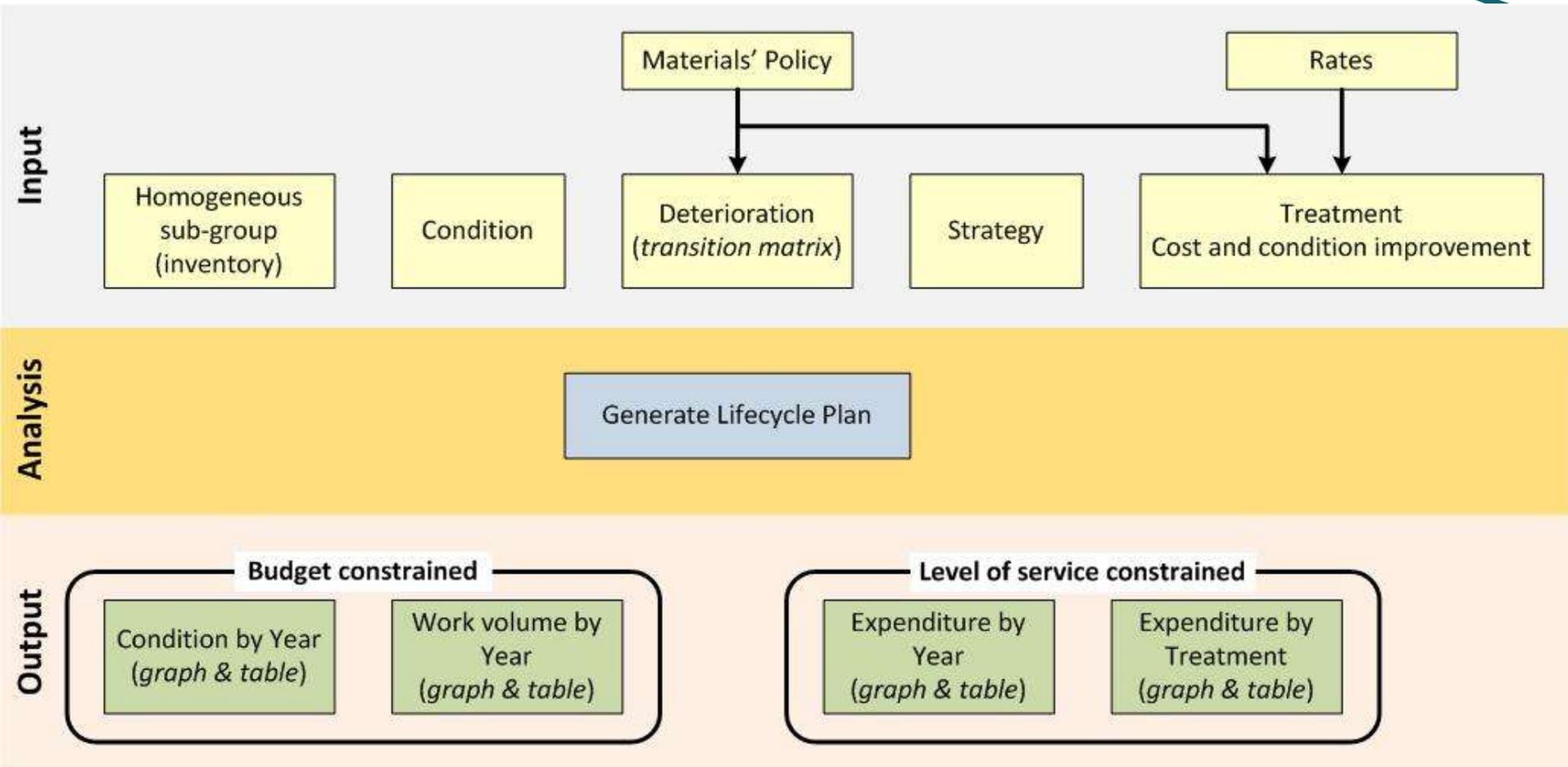
Lifecycle planning toolkit

- To produce a toolkit for lifecycle planning for highway assets, that is free to use and suitable for practitioners who have not started on this yet, as well as those who have made good progress.
- Associated guidance will be produced.
- Deterioration modelling for pavements only under development separately.

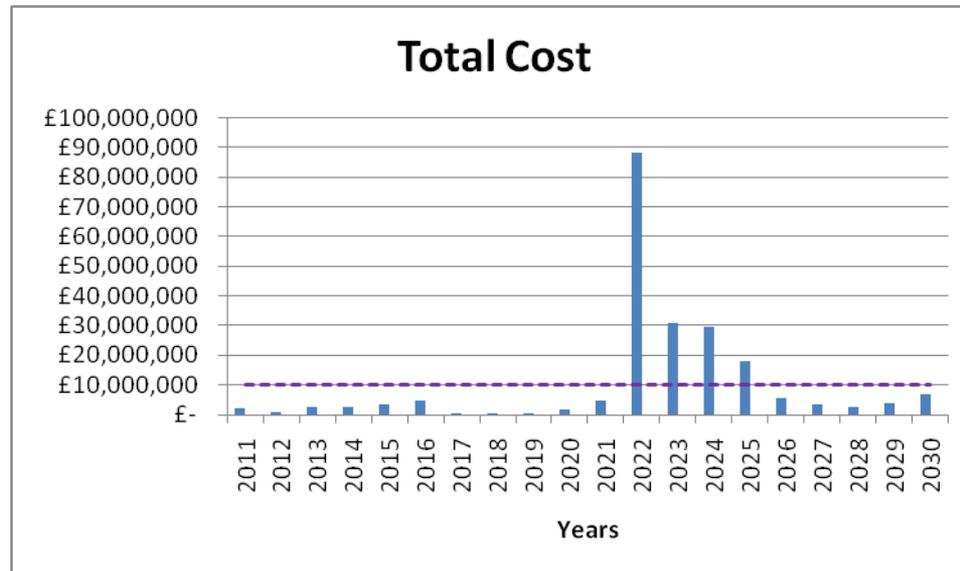
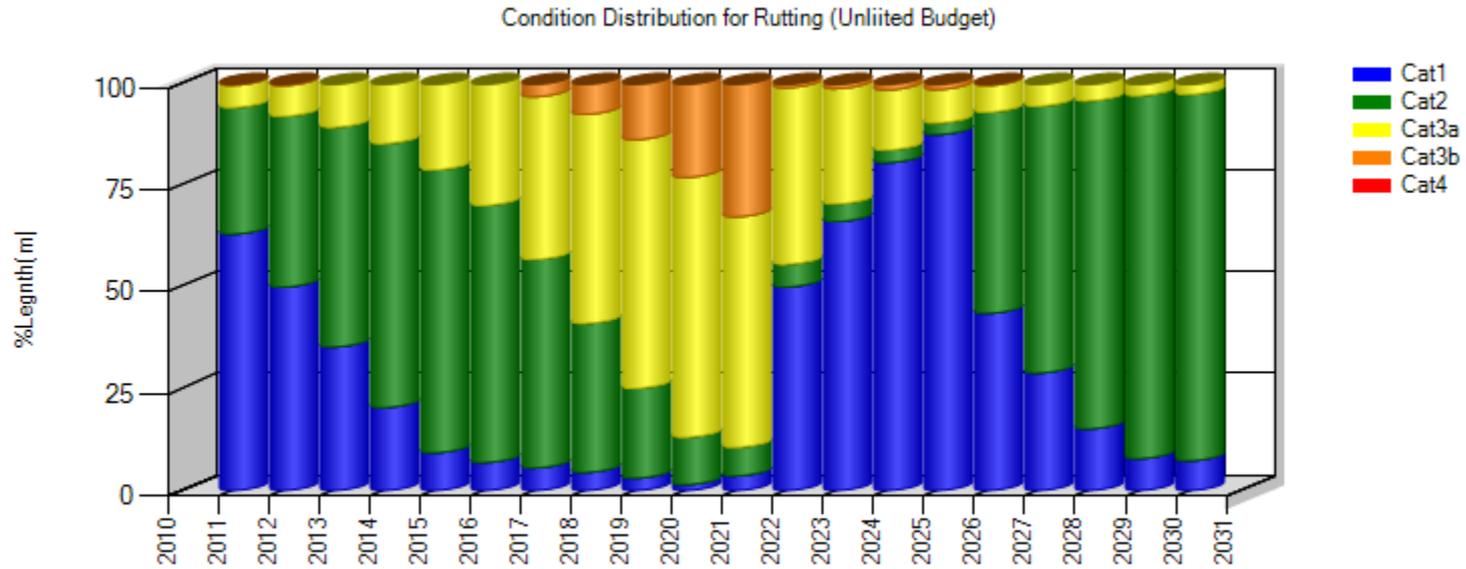
Promotes Lifecycle Planning Principles



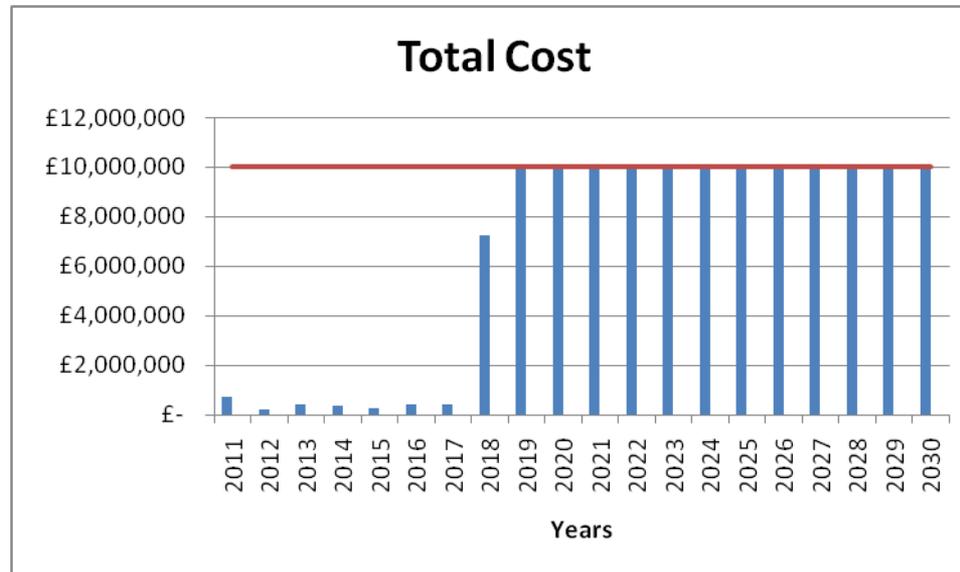
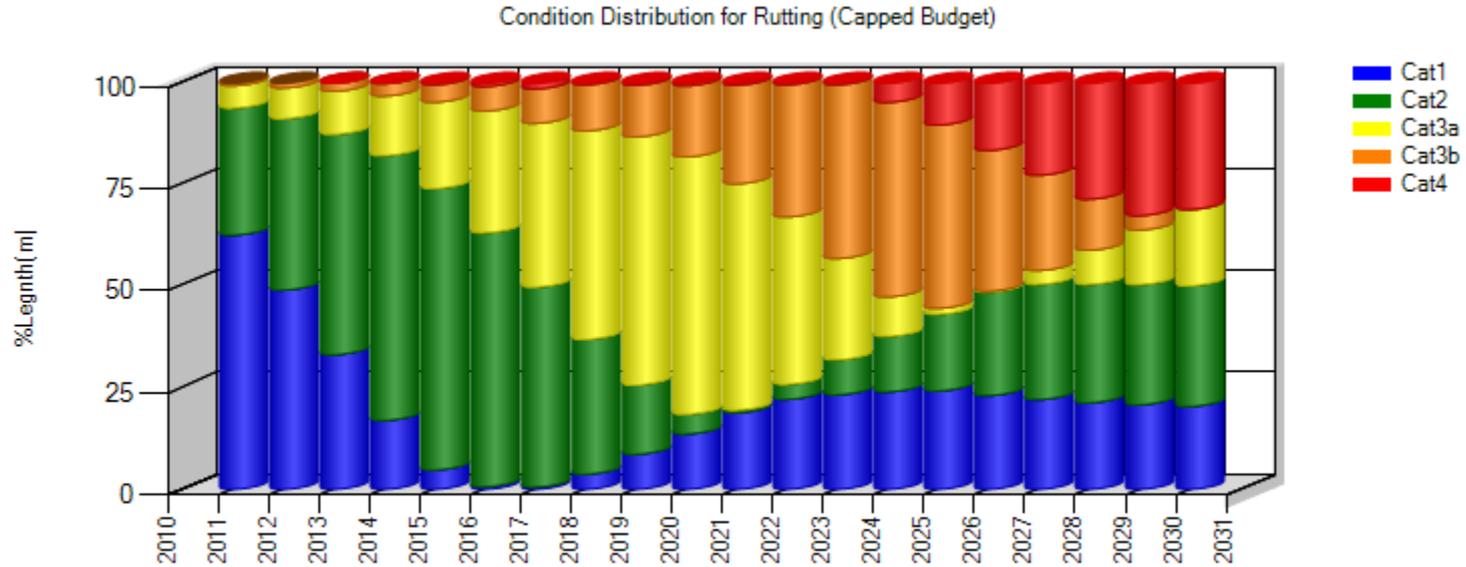
Lifecycle model structure



Scenario 1: Unlimited Budget



Scenario 2: Capped Budget



Outputs

- An Excel toolkit free to download for local highway authorities
- Will be supported by deteriorations model
- Due for completion by the end of the calendar year

Using the toolkit

- Supporting the development of understanding of understanding of lifecycle
- Provide default materials policy
- Will be able to support the benefits and costs savings of developing a preventative approach to maintenance

Updating standards



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Risk Based Approach

Updating Well-maintained Highways

- Work for DfT on behalf of UKRLG
- Functional hierarchy
- Linked to service standards, data collection and inspections
- Guidance on managing a more resilient network
- Optimising between efficiency and resilience

*“A clever person
solves a problem.
A wise person
avoids it”*

Conclusions

- Significant challenges to highway authorities
- Adoption of asset management principles supports a long term view to meeting these challenges
- Guidance will be available to support development of common approach
- Tools provided to support decisions
- Tools can be used to manage risks
- Success will come from embedding these approaches