Water Supply Data Management, Infrastructure Planning & Asset Management

Asset Lives

Peter Styles
Exercises

• Asset lives

• Levels of service

• Referencing and data collection

• Condition grading

• Performance grading

• Valuation
The Inventory is fundamental

- Asset data
- Condition grades
- Performance grades
- Cost data
- Asset lives
- Investment programme: planning & priorities
- Valuation of current asset base
- Criticality?
Asset Lives

• What different kinds of asset does a water undertaking own?

• What asset life would be given to each of these?
Engineering constructions

- Impounding dams: 60 years
- Treatment plants: 50 years
- Service reservoirs: 50 years
- Pumping stations: 50 years
- Wells: 30 years
- Permanent buildings: 50 years

Other Engineering

- Metalled roads: 15 years
- Unmetalled roads: 10 years
- Internal building works: 10 years
- Boundary fencing: 10 years
Asset Lives

Pipelines

- Steel* 30 years
- Plastic 60 - 100 years
- Cast/ductile iron 60 - 100 years
- Concrete**/clay/brick 60 - 100 years

* considerably less if used unprotected

** considerably less in sulphide bearing environment/hot climate
Asset Lives

Mechanical and Electrical Plant

- Mechanical plant 15 years
- Electrical plant 15 years
- Valves and bulk meters 10 years
- Service meters 5 years
Asset Lives

Electronics

- Mainframe computers 5 years
- Networked computers 5 years
- PC’s 3 years
- Communications 5 years
- Instrumentation 5 years
Asset Lives

Vehicles and Mobile Plant

- Small vehicles 3 years
- Heavy vehicles 10 years
- Mobile Plant 10 years
# Asset Lives

**Land**

- Freehold: Indefinite
- Leasehold: Remaining term

**Buildings**

- Concrete and brick: 60 years
- Steel and cladding (warehousing): 25 years
- Temporary (including wood): 10 years
Resume on Asset Lives

- Different kinds of assets have different asset lives
- Structures have long life typically 50 plus years
- Mechanical plant has shorter life typically 10 years
- Some materials perform badly in hot climates
- Steel has to be looked after to avoid premature failure