

# Asset Management

“Asset Valuation Process-  
Infrastructure Assets”

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IPWEAQ 2005 Central & Northern  
Branch Conference



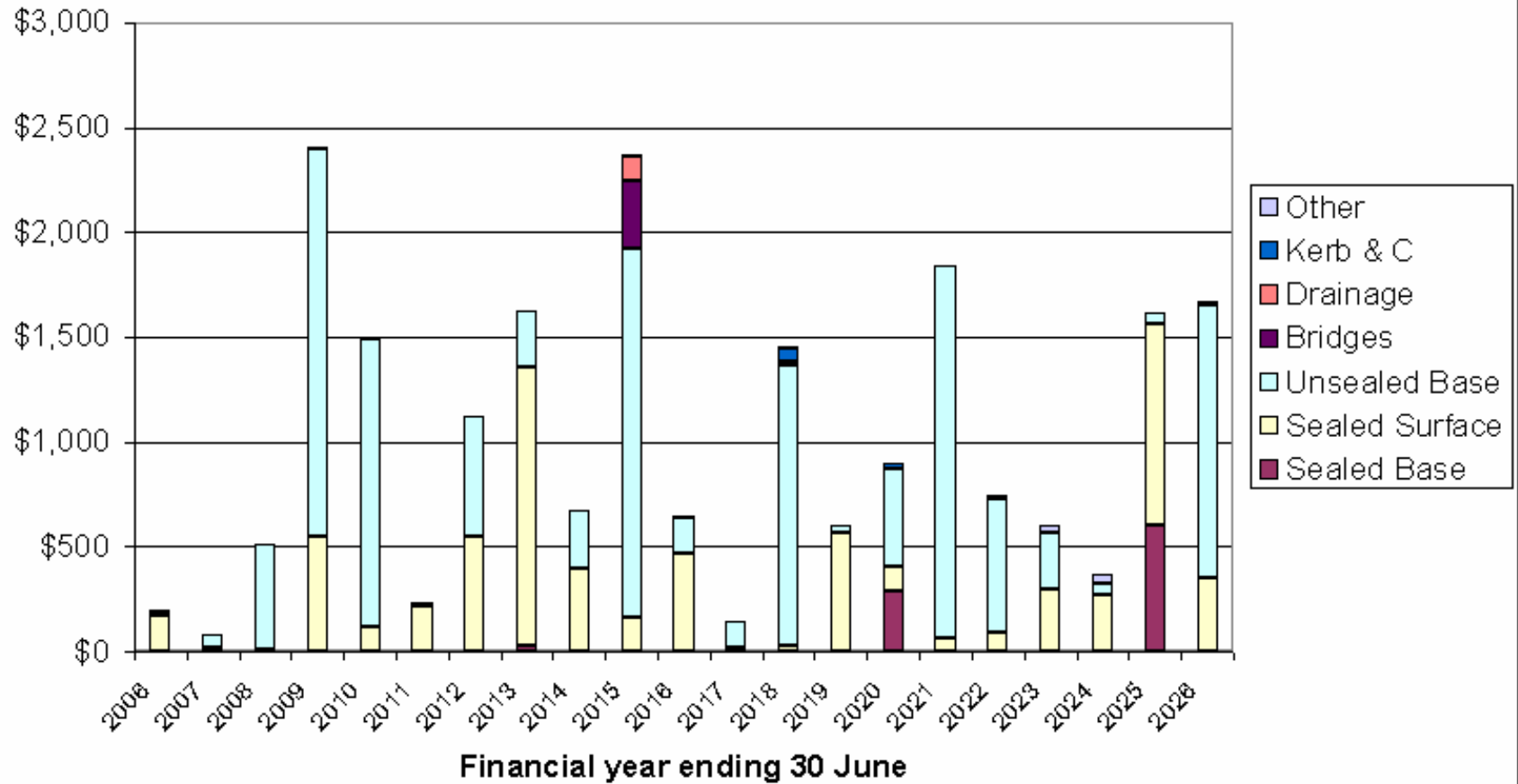
# Aim

- To share what we have learnt by helping a number of Councils in Queensland through the valuation process. (12 Councils to date)

# Why can't we just get on with the real things that matter. Building stuff!!

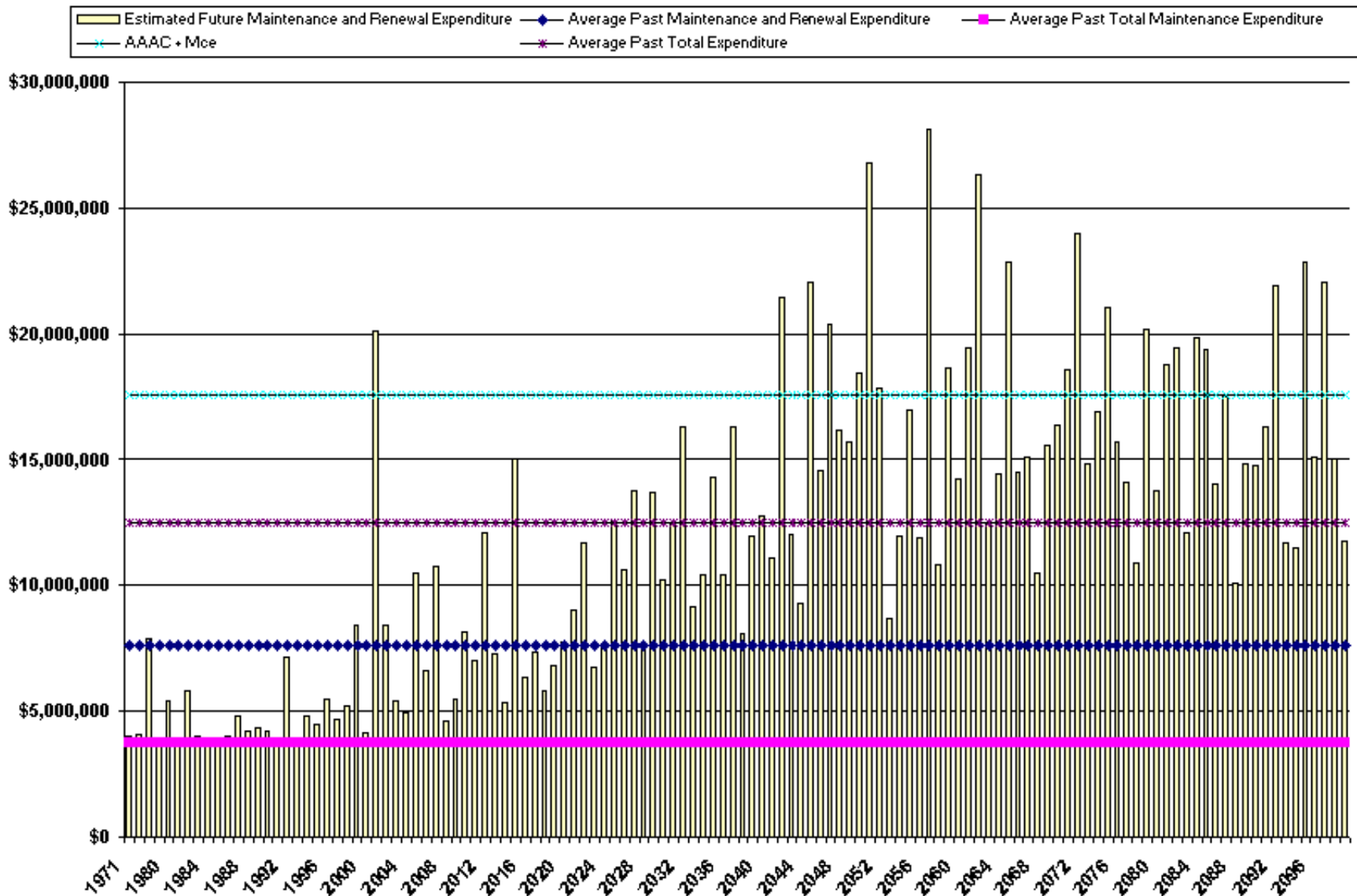
- We need to maintain what we have really before we build new assets.
- Knowing your maintenance and renewal costs are important to be able to predict your costs over a 10-20 year period.
- Completing a revaluation is the starting point in determining the renewal cash flows.
- Also regulation now requires that all infrastructure assets be valued and for Council to account for these future renewal costs.

## Asset Renewal Cashflow \$,000



# Long term revenue and expenditure trends.


## Comparison for All Assets - Future Expenditure Cashflow and Past Average



# Key Areas of Asset Revaluation

- Current Asset Registers.
- Revaluation Calculations.
- Methodology Documentation.

# Asset Register

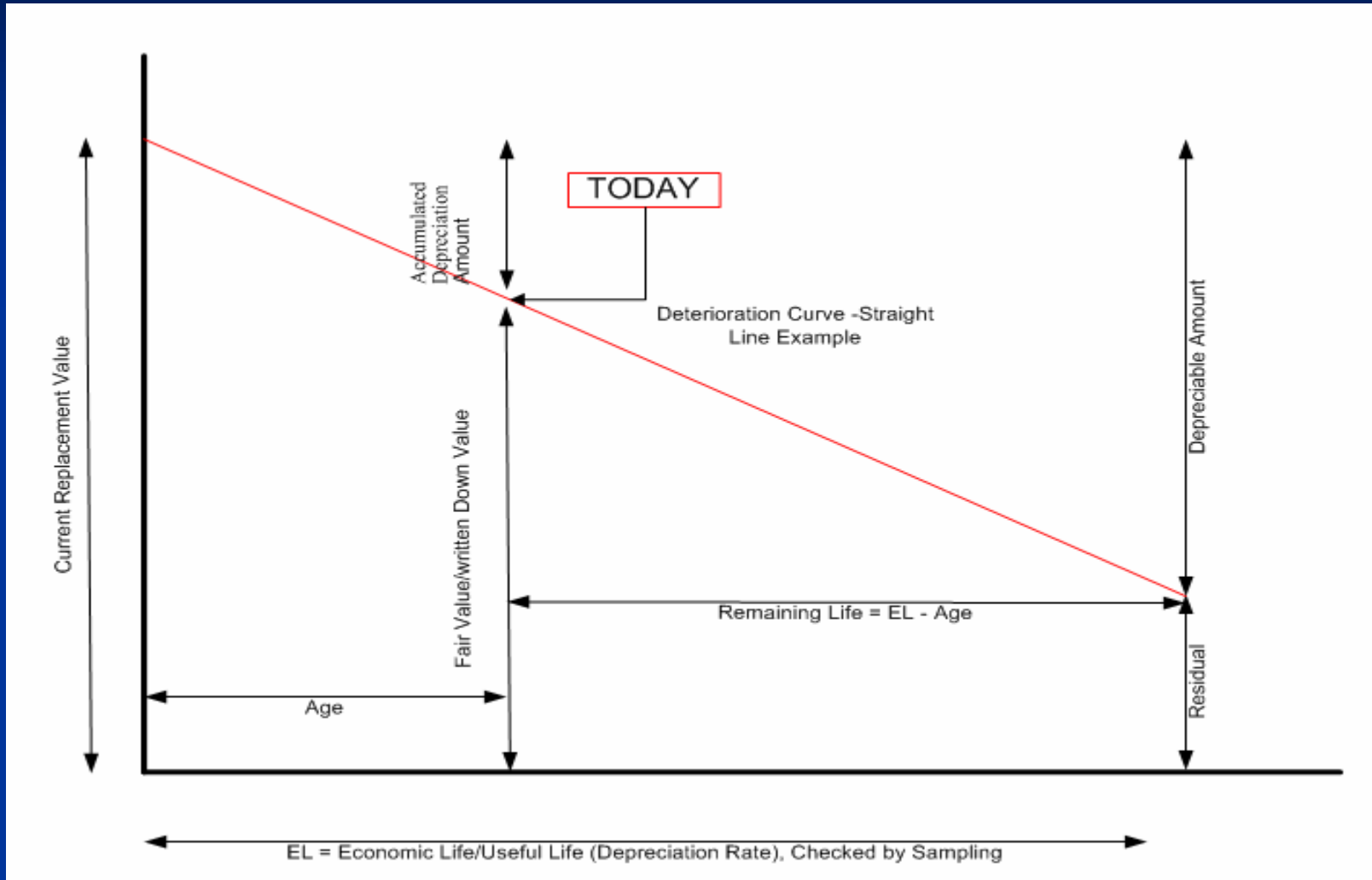
- Review knowledge and systems. Data can be in a number of places.
- Assets need to be split into their correct assets types normally based on their different useful lives. 
- Asset Identification. i.e. Address, Location, Chainages etc.
- Date Created /Renewed is required for each Asset. (Used for Age based Calculation)
- If you are using Unit Rates (\$/Volume,\$/length), then set Dimensions for each Asset will be required. i.e. Volume, length, Area.
- Condition information, if you are using condition based valuations. (Yet be careful with this from an audit point of view)
- Develop “processes” for the future for data collection.

# Revaluation Calculations.

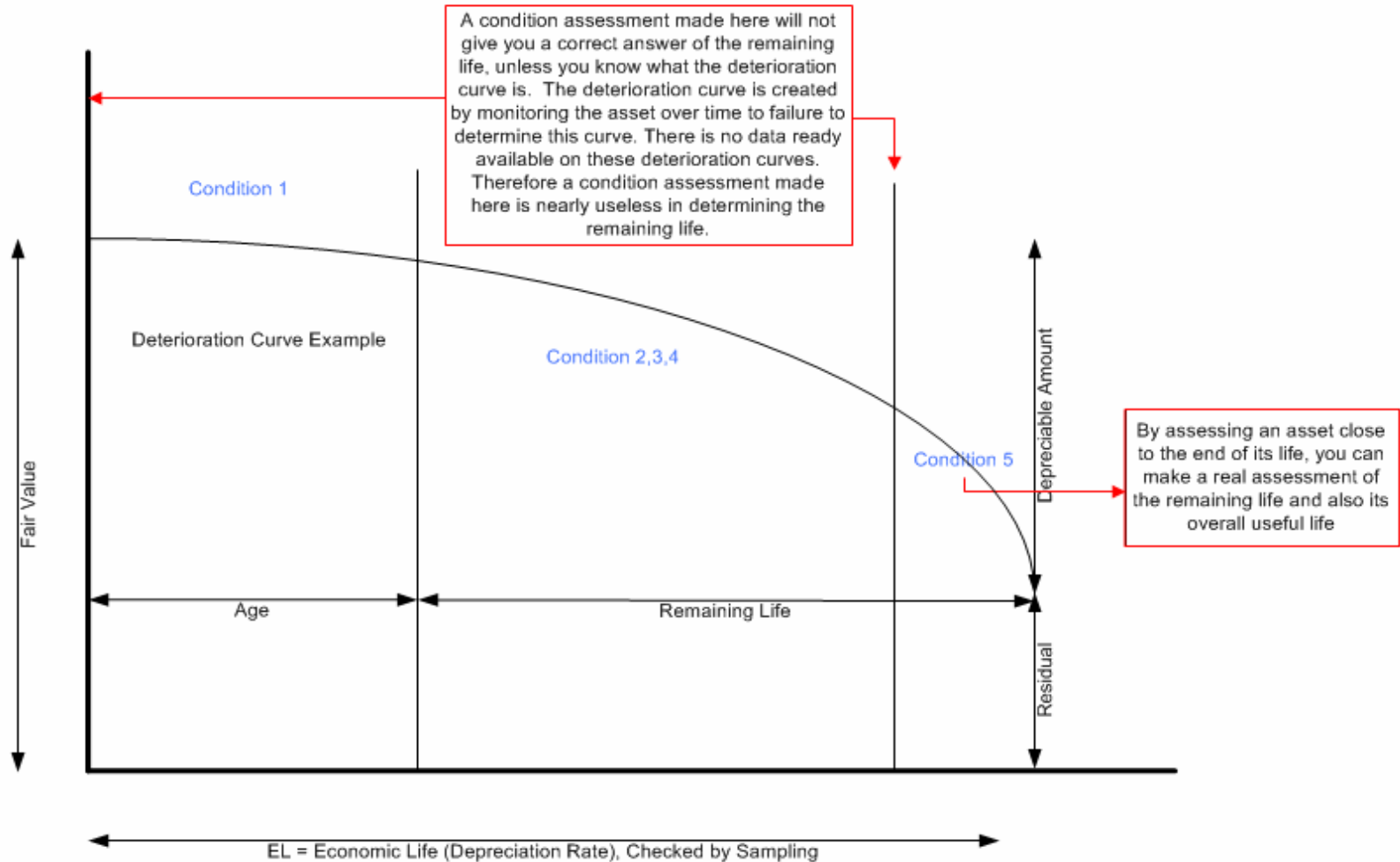
- **Current Replacement Value = Dimensions x Unit Rate or A Lump Sum Amount**  
(Normally Infrastructure Asset Don't have Fair Value and There CRV is acceptable)
  - **Written Down Value/Fair Value = (Remaining Life/Useful Life) x Current Replacement Value**
    - Remaining life Calculations have been calculated by.
      - Age (*Remaining Life = Useful Life - Age.*)
      - Condition Index (Be Careful with this one. As you might need to Prove How)
  - **Accumulated Depreciation Value = Current Replacement Value- Written Down Value**
  - **Annual Depreciation Value = (Current Replacement Value)/Useful life)**
- Or
- **Annual Depreciation \$ = (Current Replacement Value – Residual Value)/Useful life)**

#Residual Value \$ = Amount that is considered to be left once the asset is finished its life.  
(harder to determine this for infrastructure assets as we might not have enough history)

# Age based-determination of Useful Life, critical for this method



# Condition based-be Careful



# Unit Rates

- They need to be Auditable.
  1. Internal -by First Principles with Workings.
  2. Internal -from Job Costing with Audit details.
  3. External-supplied by Qualified Persons RPEQ. (check with auditor)
  4. Internal rates will require overheads (Survey, investigation and inspection, Engineering Design, Engineering Supervision, Council Administration)

Recommend internal rates for Council asset that are constructed regularly  
(Sealed/Unsealed)

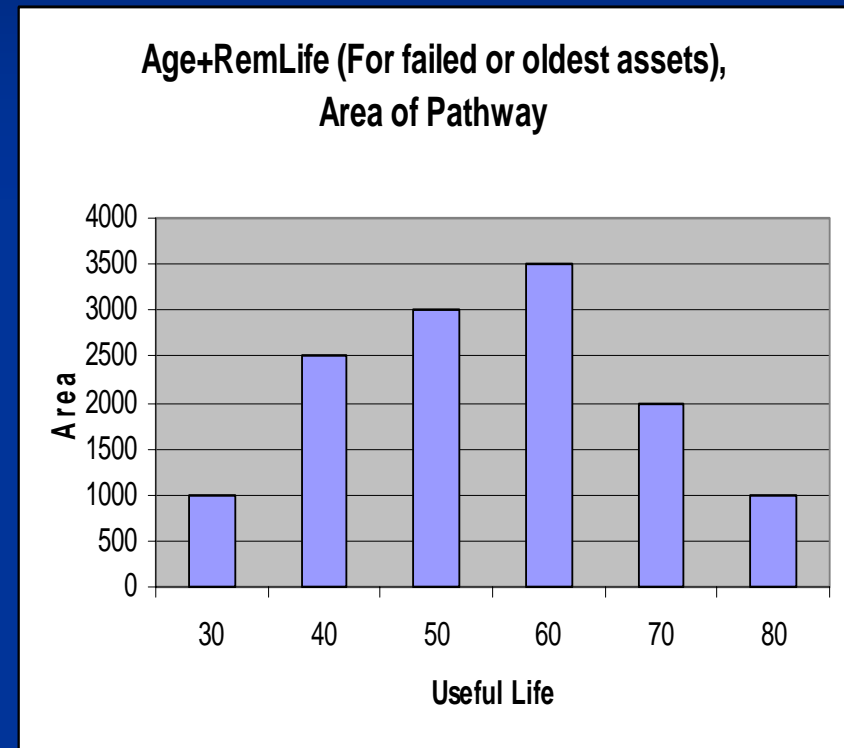
and maybe external for ones not. (Bridges and stormwater)

**VERY IMPORTANT STEP**-review your methodology of determining the  
unit rates with Councils Auditor



# Useful Life

- Start with National Database Information. E.g. IPWEA Infrastructure Manual
- Review for your own Area by Sampling those assets close to the end of their life.
- Provide Details in your Methodology.



# Asset Valuation Methodology

## ■ Outlines

- Summary of the Financial Position. Total CRC ,WDV etc.
- Formulas/methods used to Calculate CRC ,WDV, ADep.
- Description of How Remaining Life was Determined for the different Asset Types.
- Any other information that was used to determine the valuations.
- Attachment of Unit Rates Workings.

- Very Important to get this to your Auditor before running your revaluation calculations.

# Other Useful Things Found

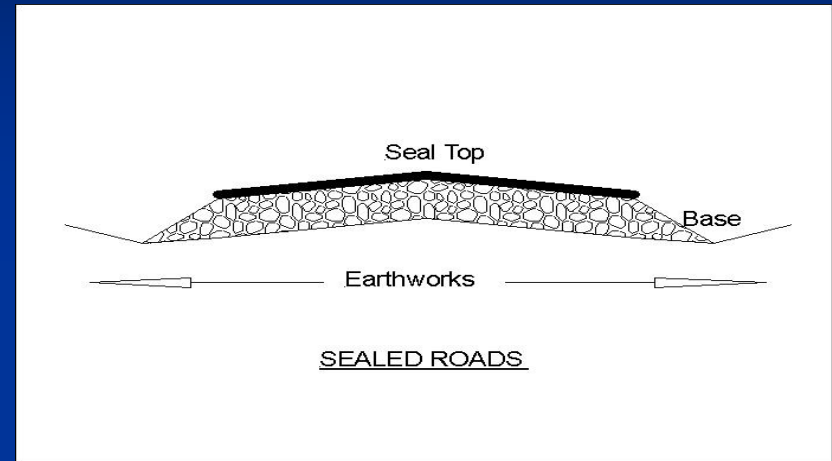
- For those Councils using Practical Accounting System, there is a Method of uploading New Asset data into Practical electronically. Save lots of time.

# Conclusion

- Give it a Go, it is not that hard, just takes time.
- Or maybe outsource, yet be involved in the process so that the outcomes are right.

# Example of Asset Components

- Seal Roads Components
  - Surface: Two coat spray seal (10-15yrs) .
  - Pavement - (Base 20-40yrs/Subbase 40-70yrs)
  - Formation (Not depreciated or Long life)
  - Kerb and Channel -50 yrs



# Attachment A-Unit Rates Table

Subasset Category	Category	Unit Rate Code	Unit Cost 1	Unit 1	Overall_Economic_Life
Seal	Roads	Seal-Pavement-Class--Alliance Class--Urban	\$70.00	Volume m3	45
Seal	Roads	Seal-Pavement-Class-P1-Alliance Class--Rural	\$22.60	Volume m3	50
Seal	Roads	Seal-Pavement-Class-P2-Alliance Class--Rural	\$22.60	Volume m3	55
Seal	Roads	Seal-Surface-Asphalt-Class--Alliance Class-8-Ur	\$17.25	Area m2	12
Seal	Roads	Seal-Surface-Asphalt-Class--Alliance Class-9-Ur	\$17.25	Area m2	12
Seal	Roads	Seal-Surface-Sprayed Seal-Class-A 1a-Alliance	\$4.00	Area m2	8
Seal	Roads	Seal-Surface-Sprayed Seal-Class-A 1a-Alliance	\$4.00	Area m2	8
Seal	Roads	Seal-Surface-Sprayed Seal-Class-A 1b-Alliance	\$4.00	Area m2	8
Seal	Roads	Seal-Surface-Sprayed Seal-Class-A 1b-Alliance	\$4.00	Area m2	8
Seal	Roads	Seal-Surface-Sprayed Seal-Class-A 2a-Alliance	\$4.00	Area m2	8
Seal	Roads	Seal-Surface-Sprayed Seal-Class-A 2a-Alliance	\$4.00	Area m2	8
Seal	Roads	Seal-Surface-Sprayed Seal-Class--Alliance Class	\$4.00	Area m2	8
Seal	Roads	Seal-Surface-Sprayed Seal-Class--Alliance Class	\$4.00	Area m2	8
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