



Core Component 4: Life Cycle Costing

An examination of the entire life of the asset

What is an asset's life cycle?

Design → Construction → Maintenance →
Repair/Rehab/Replacement → Decommission/Disposal

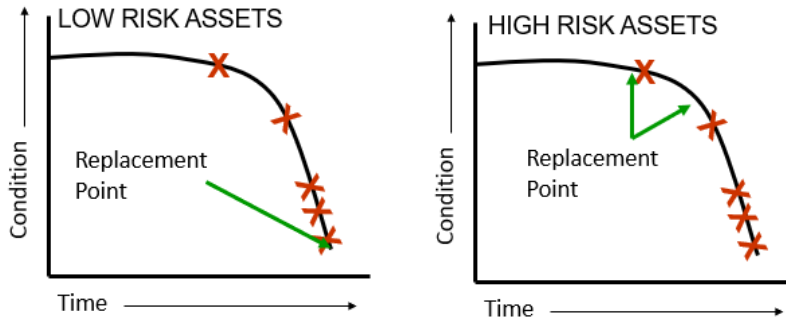
Life Cycle Costing is the intersection of asset management and managing assets.

- Asset Management is the effective and efficient process of managing an individual asset throughout its life cycle.
- Managing Assets is managing the entire collection of the system's assets.

Consider the Risks

- Higher risk assets may need preventative maintenance to prevent failure or they can be replaced early, before failure
- Medium risk assets can benefit from routine and preventative maintenance
- Lower risk assets may require minimal maintenance; and can run to failure

If you want plan asset replacement over time, use your asset inventory and criticality assessment to determine when each asset should be replaced. Then, figure out how much that might cost.



Capital Improvement Planning (CIP)

Plan for large expenditures in the CIP. Use the asset inventory to help determine what year each asset will need to be replaced and what it will cost to replace it. Include:

- Useful life estimate
- Replacement cost
- Asset condition

Budget

The CIP and an Operations & Maintenance Plan can inform budget development.

- Capital Budget – incremental funding needed every year to replace assets
- Operational Budget – annual funding for O&M of all assets

Visit the [Southwest Environmental Finance Center Asset Management Switchboard](#) for more tips on life cycle costing.

LCC IN CIP

CIPs should consider at least 10 years of repairs, rehabs, and replacements. Planning for 20 years or more provides an advanced idea of when assets should be replaced and the associated costs. Review your CIP every few years.

LCC and BUDGETS

Request all funding needed. The request can convey the full costs and needs to operate the utilities to financial decision makers. Know where to cut costs if requested funding is not received.

HOW TO START

Begin ranking assets while working on your asset inventory and criticality scores. These components can help with life cycle costing, improvement planning, and budgeting.