

# LIFE CYCLE PLANNING

By Chris Nelson

Facility life cycle planning is a systematic approach to forecasting the maintenance and replacement requirements of the components of a facility over its complete life span. This is done by means of a facility audit.

The process includes developing accountable strategies to provide the resources needed for repair, retrofit, and improvement projects. Life cycle planning is seen as a tool to help protect and maintain the substantial public investment in recreation facilities in British Columbia and other Provinces across the country.

Life cycle planning is demonstrated and used primarily for major indoor facilities—an arena, pools, gymnasiums—but it is equally applicable to outdoor facilities, large and small.

## THE BASICS OF LIFE CYCLE PLANNING

Four terms can be used to describe the types of costs associated with the life cycle of a recreation facility.

- Capital development includes the expenditures associated with planning and constructing a facility.
- Maintenance comprises all of the day-to-day activities that care for the physical fabric of a facility, including minor repairs.
- Conservation deals with repairing and replacing major facility components and systems due to natural aging, faulty design, and construction and maintenance problems.
- Capital improvements include only those activities and expenditures that upgrade or change the use of a facility

## ROLES AND RESPONSIBILITIES

The following roles are perceived to be appropriate for implementing a life cycle planning process.

### Facility Owner

- Make a commitment to the life cycle planning process.
- Establish a base line component inventory and assessment through a facility audit.

- Review the facility audit and establish strategies to meet maintenance, conservation, and capital needs for the future.
- Review and revise the life cycle plan as appropriate.
- Communicate strategies to the manager/operator of the facility, particularly those related to conservation and capital work.

### Facility Manager /Operator

- Maintain proper records of maintenance conservation and capital works undertaken for the facility
- Establish and maintain up-to-date inventory and assessment of all components of the facility.
- Implement strategies established by owners for all maintenance, conservation, and capital projects.
- Ensure an adequate maintenance plan is in place.

Many of B.C.'s recreation and sport facilities can be categorized as entering their "adolescence" (15-25years) stage. Facility owners and operators can be lured into a false sense of financial security during the first 14 years of operation. However, the "adolescence" stage shows a five-fold increase in annual expenditures for conservation and capital improvement.

If owners and operators are not prepared for an increase of this magnitude, problems with upkeep start to emerge at Year 15, which will eventually lead to facility breakdowns. Without special direction at this stage, we could find our recreation facilities reaching the end of their life cycle long before they reach the desired "old age" stage of life.