



### Environmental Stewardship Categories

1. Environmental Policy
2. Environmental Management System
3. Annual Environmental Report
4. Carbon Footprint Analysis
5. Environmental Purchasing Policy
6. Vendor/Supply Chain Requirements
7. Mentoring to Other Businesses
8. Outreach Program
9. Green Building Certification
10. Green Building Implementation
11. **Life Cycle Assessments**
12. Hazardous Materials Reduction
13. Water Use Reduction
16. Material Conservation
17. Employee Trip Reduction
18. Process/Operation Energy Use Reduction
19. Transportation Energy Use Reduction
20. Renewable Energy Use
21. Environmental Enhancement Projects
22. Innovative Program
23. EPA Voluntary Programs



### **New Jersey Department of Environmental Protection**

Bob Martin, Commissioner

Chris Christie, Governor

Kim Guadagno, Lt. Governor

**For more information visit:**

<http://www.stewardship.nj.gov/>

**Or Contact:**

Janet Smolenski

Janet.Smolenski@dep.state.nj.us

# Life Cycle Assessments



Part of the **Environmental Stewardship Initiative**: a voluntary program that utilizes existing Department infrastructure and personnel to capture information during routine enforcement inspections and recognize members of the regulated community who are engaging in positive activities that benefit the environment.

## Qualifying for Life Cycle Assessment Stewardship Recognition

To receive stewardship recognition for **LIFE CYCLE ASSESSMENTS (LCAs)**, a site must conduct an environmental analysis that considers the entire life of a product using specific and accepted standards. LCAs will look at and assess all the stages that occur during the life of a product including: raw materials extraction and energy generation, intermediate and final product synthesis, consumer distribution and use, disposal or reclamation. A suitable LCA will consider environmental discharges, degradations, and general impacts that occur at each life stage. Using the information from LCAs, a company may be able to identify areas in which implementing changes could increase efficiency and reduce environmental harm.

## Environmental awareness through **LIFE CYCLE ASSESSMENTS**

\*LCA is neither a product quality assurance evaluation nor an economic evaluation.



\*LCA should include analysis of all stages of a product's life (even if controlled by other entities).



\*Examples of acceptable LCA standards include: EPA LCA101 or ISO 14040.

\*A site must be able to elaborate on the product evaluated and the LCA

### Conducting **LIFE CYCLE ASSESSMENTS** should help:

- ⇒ Identify areas over the life of a product or service in which inefficiency and environmental harm occur.
- ⇒ Create and implement changes targeted to reduce the environmental impact of product or service production at specific stages in development.
- ⇒ A company to make more informed production decisions.
- ⇒ Allow a company to create and identify areas in which its product has environmental advantages over competitors' alternatives.
- ⇒ Improve marketing and increase consumer trust in and demand for a company's product.

### Consider...

1. Where do raw materials and production energy come from? What types of processes and procedures are implemented at this preproduction stage?
2. Who uses the product, where is the consumer located, and what amount of shipping is required for distribution?
3. What type of maintenance is required during product use?
4. How much energy use or water generation is involved in product use?
5. Is the product discarded—recycled or disposed of—or reused at the end of its life?

For more information on **LIFE CYCLE ASSESSMENTS**, visit:

#### **EPA — Life Cycle Assessment Home**

<http://www.epa.gov/ORD/NRMRL/std/sab/lca/>

#### **Life Cycle Assessment: Principals & Practice**

<http://www.epa.gov/ORD/NRMRL/lcaccess/pdfs/600r06060.pdf>

#### **UN Environment Program — Life Cycle & Resource Management**

<http://www.unep.fr/scp/lifecycle/>

