

Who Benefits from the LIFE™ Model

The LIFE™ model supports the development of land in ways that do not degrade the environment while providing clients with least-cost stormwater management solutions.

The LIFE™ model benefits a variety of users, including:



Cities and counties can use the model for development plan review, stormwater master planning, stormwater National Pollutant Discharge and Elimination System (NPDES) permitting, re-development planning, and incentive-based approaches that could include trading.



Developers can use the LIFE™ model to optimize site design for the greatest return on investment while meeting environmental regulations.



Military facilities can optimize site re-development and meet stormwater regulations.



Ports, harbors, airports, and Departments of Transportation can use the LIFE™ model for stormwater management design and permitting.



Regulatory Agencies can use the model to issue design guidelines and review procedures for LID projects, and evaluate permit compliance with NPDES and Total Maximum Daily Load (TMDL) requirements.

Contact Us

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LIFE™ Model

A software tool

that balances

economic growth and

environmental stewardship

Bringing LIFE to Watersheds™





What is the LIFE™ model

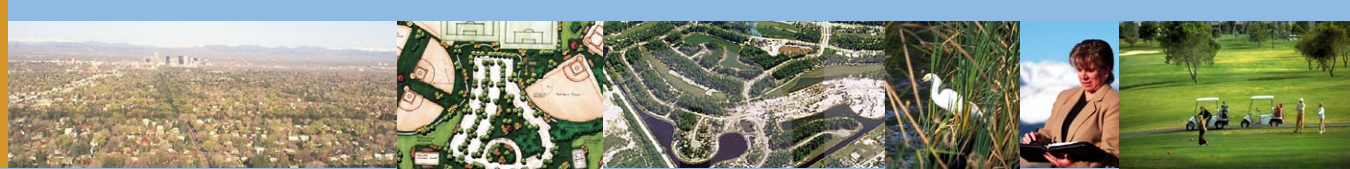
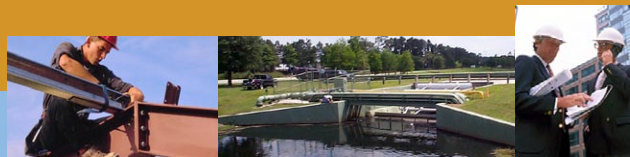
The LIFE™ model is a software tool that balances competing priorities of economic growth and environmental stewardship—at the individual site level.

CH2M HILL developed LIFE™ as a design and decision support tool for Low-Impact Development (LID). A basic principle of LID is *controlling runoff at the source*, which LIFE™ supports by analyzing the performance of different stormwater controls on individual sites.

The LIFE™ model is a physically-based, continuous simulation tool that represents the processes that occur within bioretention facilities, vegetated swales, green roofs, infiltration devices, and other LID controls. LIFE™ accounts for runoff generated from all categories of land cover, including roadways, landscaping, and buildings over a variety of land uses and soil types, for new development and re-development. The LIFE™ model can be used to:

- Design appropriate, site-specific best management practices
- Evaluate the effects of LID controls on runoff volume, peak flows, water quality, and habitat

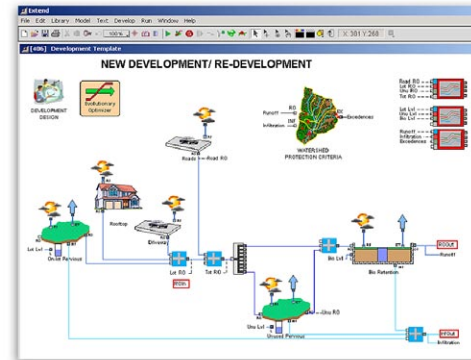
The model, developed on an Extend™ dynamic simulation platform, provides runoff volumes, hydrographs and pollutant export from sites where stormwater management is achieved with LID. The model has optimization utilities that provide least-cost stormwater management solutions to meet site specific stormwater protection goals and quality-of-life objectives. The model is a visually oriented, interactive tool that allows a wide array of applications ranging from site design, to site analysis and review, to public education.



The LIFE™ model has a wide range of application possibilities

The LIFE™ model can be used for:

- Design of volume or water quality based stormwater controls
- Review of development/re-development plans for compliance with stormwater regulations
- Incentive-based approaches such as environmental credit trading
- Public education and outreach



“Let me tell you how impressed I am with the LIFE™ model... I am absolutely blown away by the flexibility this approach offers... I can't wait to see where you take this tool. Here's a motto for you. LIFE™ is the Answer.”

— Russell Kinerson, Ph.D
Senior Environmental Scientist
U.S. EPA

The opinions expressed by Russell Kinerson do not represent the official position of the U.S. EPA.

