Environmentally friendly landscaping is part and parcel of today's 'green' animal shelter.

BY DEBRA J. WHITE

NORTH AMERICAN ANIMAL shelters are going green. Besides solar powered buildings with double-paned windows and occupancy sensors to control lighting, animal shelters incorporate eco-friendly landscaping as part of their green vision to save unwanted animals — and the environment.

Since the Tompkins County SPCA opened in Ithaca, NY, in 2004, the first to earn Leadership in Energy and Environmental Design (LEED) certification, additional shelters have followed in places as far reaching as Texas, California, Rhode Island and Manitoba, Canada. At press time, green shelters are under construction in Michigan, while others are in the planning stages.

Environmental laws and consumer preference for green shelters will increase demand for eco-friendly landscaping. For example, the Virginia Beach SPCA recently won a grant to launch a series of green projects. Among them are a storm water management program and the capture and use of animal waste to benefit landscaping.

Vegetative roofing
The Robert Potter League for Animals opened in Middletown, RI, in November 2008, and counts vegetative roofing among its many green features. Located on wetlands, Potter is close to Bailey Brook, which feeds into a drinking water supply.

"Storm water runoff picks up toxic waste as it drains into our sewer system and into ponds, brooks and eventually the ocean," notes Pat Heller, Potter's director of development. "Vegetative roofing cuts down on water pollution.”

Apex Green Roofs of Somerville, MA, planted an assortment of lavenders, alliums, sedums and grasses known for their tolerance to wind, heat and drought. Once the 3,000 plants are in full bloom, they will insulate Potter, limit storm water runoff, reduce the heat island effect and improve air quality.

Green roofing lowers summer
temperature, thus cutting energy costs. That's important to non-profits like Potter.

**Water management**
The Humane Society in Silicon Valley, CA, is opening its new, green facility this spring. Landscaping features include bioswales to capture and cleanse rainwater, according to Laura Fulda, the group's vice president for marketing and communications.

"Bioswales will reduce the energy needed to clean water supplies," says Fulda.

Landscapers added native plants such as vine maple, meadow onion and yerba mansa that grow well in California's low rain climate.

Jaci Nichols, development director for Ann Arbor, MI's Humane Society of Huron Valley, says landscaping plays a major role in their green shelter currently under construction. The shelter will collaborate with the University of Michigan's Matthaei Botanical Garden adjacent to the site to protect and restore native landscape and habitat.

"Currently, the site has no storm water management system," says Nichols. That's a concern, she adds, because Michigan gets ample rainfall and snow. "The new site meets all regulatory requirements, and will implement best management practices to lessen potential damage to the creek, wetland and ponds nearby."

Nichols says the shelter is working with the Washtenaw County Drain Commissioner to apply infiltration standards in the design of the retention basins. Other eco-friendly landscaping designs include vegetated bioswales, rain gardens and use of native plants to manage soil erosion and storm water runoff.

**Going green**
Although no national sources compile data on green animal shelters, zoos or animal sanctuaries, architects like Lucinda Schlaffer of ARQ in San Francisco say they often receive calls from shelter managers asking about green design. Going green, Schlaffer says, requires a commitment not only of time and money, but dedication to eco-friendly principles.

"Switchboards are busy at architecture firms like ARQ and others that design animal shelters. Experts agree going green is the best way to reverse climate change, stop overflowing landfills and combat pollution. These days, shelters will almost always include eco-friendly landscaping in their plans from the start," Schlaffer says.

Heller agrees: "Constructing a building with a social conscience fits into our mission of making a difference and enriching lives for both people and animals." LDE

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**WHAT IS LEED?**
Leadership in Energy and Environmental Design (LEED) is a rating from the US Green Building Council. It uses a point-based system that rewards buildings for water efficiency, energy, atmosphere and other green innovations. LEED Version 3 is being rolled out by the USGBC on April 27. Visit [www.usgbc.org](http://www.usgbc.org) for more information.

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**Lucinda Schlaffer**
Lucinda Schlaffer is a practicing architect and LEED AP with ARQ, a LEED AP architecture firm in San Francisco. She is an instructor at the University of Arizona and University of San Francisco. She is a founding trustee of the San Francisco chapter of the American Institute of Architects and chair of the Green Committee. She has been a featured speaker in the past for the American Institute of Architects, California State Bar and American Society of Interior Designers.

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**WHY IS LEED IMPORTANT?**
LEED is an environmental certification system for buildings that focuses on energy and resource efficiency. It is a process that ensures that a building is designed, constructed and operated in a way that minimizes its environmental impact. LEED can help to reduce energy consumption, water usage and waste, and can improve indoor air quality.

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**LEED VERSION 3**
LEED Version 3 is the latest version of the LEED rating system. It includes updated criteria and new requirements for the design, construction and operation of green buildings. Some of the key changes in LEED Version 3 include:

- Increased emphasis on water efficiency
- New requirements for energy efficiency
- Updated criteria for indoor environmental quality
- Revised requirements for sustainable sites

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**LEED CERTIFICATION**
LEED certification is available for a variety of building types, including commercial, institutional, retail, industrial, residential and public buildings. It is a voluntary program that provides a framework for improving the environmental performance of buildings.

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**LEED OPERATIONS AND MAINTENANCE**
LEED Operations and Maintenance (O+M) is a program that focuses on the maintenance and operation of LEED-certified buildings. It provides a framework for measuring and improving the environmental performance of buildings once they are occupied.

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**LEED GREEN BUILDING COUNCIL**
The LEED Green Building Council is an organization that promotes sustainable building practices and is the organization responsible for developing and maintaining the LEED rating system.

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**WHY USE LEED?**
LEED is used by architects, engineers, contractors, developers, owners, managers and other stakeholders to create environmentally sustainable buildings. It is a widely recognized international standard and is used by governments, organizations and businesses around the world.

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**HOW TO GET LEED CERTIFICATION**
To get LEED certification, a building must meet a series of criteria that are outlined in the LEED rating system. This includes requirements for energy efficiency, water efficiency, indoor environmental quality, sustainable sites and sustainable materials.

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**WHAT IS A LEED CERTIFIED BUILDING?**
A LEED-certified building is a building that has been designed and constructed to meet the LEED rating system. It is a building that is designed and constructed in a way that minimizes its environmental impact and is designed to be energy efficient, water efficient, and sustainable. It is a building that is designed and constructed to be environmentally sustainable.

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**WHEN SHOULD I USE LEED?**
LEED can be used at any stage of a building project, from the design phase to the construction phase to the operation phase. It can be used by architects, engineers, contractors, developers, owners, managers and other stakeholders who are involved in the design and construction of a building.

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**WHAT IS A LEED CERTIFIED PROJECT?**
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**LEED COMPLIANCE**
LEED compliance is important for the design and construction of a building. It is a way of ensuring that a building is designed and constructed in a way that meets the LEED rating system. It is a way of ensuring that a building is designed and constructed in a way that is environmentally sustainable.