Community: Earth

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How Community Associations Are Protecting the Planet

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GOOD TO THE LAST DROP

By Tom Ash

Would you like to save utility dollars, reduce liabilities and damages, improve landscape health, and help minimize the effects of a drought? Look no further than an efficient landscape water-use program.

The largest monthly expense for many homeowner associations is landscape maintenance. Water is a necessary cost in the landscape maintenance budget. But how aware is your association that excess water use causes hardscape damages (to streets, walls, fences, and homes), soil erosion and slippage, and pollution from water run-off laced with fertilizers and garden chemical? Not to mention high water bills? So, do you know how water-efficient your individual homes and your association common areas really are?

WET N' WILD

There are many real-life examples of association over-use of water.

Case #1: One homeowner association in a Sun Belt state should have an annual landscape water bill of about $40,000. Yet this association—made up of 80 percent turf, with 38 acres of parks and green belts—spends $90,000 a year on landscape water. Plants are watered more than they need. The excess water use obviously leads to high bills, but it also damages stucco walls and necessitates more fertilization, which in turn increases plant growth and mandates more labor to mow, prune, and dispose of the green waste.

Case #2: At another association, excessive landscape water use has killed trees, caved in slopes, damaged a few homes, lowered water pressure for home use, and generated penalty water bills for both the association and individual homeowners. The water run-off, awash with excess chemicals from fertilizer, is contributing to regional water pollution problems. Homeowners have also been found to be wasting 24 million gallons of water a year, mainly in their gardens.

Case #3: A third association has watered during record El Niño rain months. Irrigation controllers aren't being turned off in response to weather changes. A simple water audit/water bill examination reveals that an average of $7,500 is spent every year on water that the plants don't need. Wasted water, wasted money.

NEEDFUL THINGS

How much water does an association need for its landscaping and its individual homes? As much as its plants require for optimum health—less than you think.

Landscape. Landscape water demand is a function of the weather and the types of plants on the property. If this isn't an exact science, it's getting close. Weather station systems exist in many states, including

Texas, Colorado, Arizona, and California, with Utah, New Mexico, Oregon, Washington, and Nevada soon to follow. These weather stations measure how much water fescue, blue grass, and other turf grasses require to stay green and healthy. This measurement is called the evapotranspiration rate, or ET.

Landscapes need only the ET rate to thrive. Plants do not benefit from more water than this—yet water-agency studies show homeowner associations typically use 50 percent more water than the ET rate requires. Each of our three association examples worked with its local water agency to determine square footage, ET rate, and site water budgets. With a scientific target for efficient water use, the landscape contractors for the sites were able to use soil probes and weather station data to set efficient irrigation schedules.

Home. Home water demand is based on the number of residents and the landscape area times the ET rate. Residents are even less likely to know how to water when compared to landscapers, so, each home (in the association featured in the first example) was analyzed for water-use efficiency. It turned out that residents were using 50 to 100 percent more water than their landscapes needed.

UNIVERSAL SOLUTIONS

Community associations that want to achieve efficient water use in both their common landscape areas and their homes often rely on volunteer efforts to do the right things. This rarely works over time. Voluntary resident involvement will be erratic at best—and, since landscapers usually don't pay the water bill, they have little incentive to use water efficiently. To ensure steady, efficient community and home water use, try the following steps:

Give each homeowner a hand soil probe. This tool is to monitor soil moisture. Water agencies pass them out to high water-using customers--with excellent results.

Install ET signal controllers for community landscape areas. You also might want to encourage residents to buy ET controllers for their own gardens. The controllers are set for specific plants, slope, sun or shade, and irrigation, valve by valve. The controller receives a signal from local weather stations and changes water times based on the changing ET rate.

Adapt association landscape maintenance contract specifications. These specs should detail techniques that deliver efficient landscape maintenance and reduce hidden site damages and costs.

AFTER THE RAIN

Association water issues will only magnify as water rates increase, water pollution sources are identified for clean-up, and landscapes and irrigation systems age. As we've shown, however, landscape costs *can* be reduced and managed. It takes the appropriate site data, such as square footage per water meter, actual water use from bills, and weather (ET) data to analyze if water use is appropriate. When that analysis has been made, you can figure out where and how to adapt maintenance practices.

BRIGHT RETURNS

By Marvin A. Nodiff, Esq.

Older associations are finding more reasons than ever to switch to energy-saving equipment.

Rising prices of energy and water—and the possibility of mandatory water reductions—prompted the board of Ocean Hills Country Club Homeowners Association in Oceanside, Calif., to search for ways to reduce energy consumption and protect its natural resources.

In 2003, the association installed solar panels on the clubhouse roof. Energy efficient stage lights were added in the auditorium. A new irrigation system now continuously monitors water usage to avoid waste.

The board also is considering a wind turbine demonstration project that would take advantage of the Pacific Ocean breezes to reduce the association's electric bills.

"The hump to get over is no longer whether to 'green' the community, but rather what payback is acceptable for investments in new technology," says Joe Winkler, general manager of Ocean Hills, an active-adult community of 1,632 attached and single-family houses built in the mid-1980s.

Ocean Hills received a rebate from the state to help pay for the solar panels, which in turn save the community enough on its utility bills to pay for heating the pool. The board plans to take advantage of more state and federal government incentives to continue reducing its energy use—a critical move as some estimate electricity prices will triple in the next 20 years.

Of the $789 billion federal economic stimulus package passed by Congress in 2009, more than $20 billion is expected to help spur investment in energy-saving projects. States and local communities will get most of their money in federal fiscal year 2010, which begins Oct. 1.

Community associations can benefit directly and indirectly. By investing in energy-saving equipment, associations can help offset the rising costs of heating, cooling and lighting in condominium buildings, clubhouses, swimming pools and other community facilities.

In addition, encouraging individual homeowners to reduce their energy consumption can leave them in a better financial position to pay their association assessments.

ENERGY AID

So what help is out there? A 30 percent federal income tax credit is available for individual homeowners who install energy efficient residential equipment in 2009 and 2010. The maximum amount of the credit

is $1,500. A tax credit reduces the amount of tax owed dollar-for-dollar in contrast to a tax deduction, which reduces the amount of income that is taxed.

The tax credit is available to homeowners who purchase and install equipment, such as energy efficient water heaters, furnaces, boilers, heat pumps, air conditioners, insulation, windows, doors, roofs and circulating fans used in a qualifying furnace. The equipment must be new and comply with applicable performance and safety standards as described in the tax code.

For example, if a homeowner installed insulation, an energy efficient water heater and other equipment totaling $5,000, the net cost would be $3,500. The 30 percent tax credit would save $1,500 in federal income tax. The net investment ultimately would be recovered through savings on energy bills. A typical U.S. household could save about one-fourth of its $1,900 annual energy costs by using energy-efficient appliances and equipment, according to the U.S. Department of Energy.

While insulation, windows, doors and roofs are eligible for the tax credit, the cost of labor to install these items is not. Insulation is a low-cost project that achieves significant energy savings, but labor costs account for about 75 percent of the total project costs, according to Energy Design Group, a St. Louis firm.

A 30 percent federal income tax credit also is available to homeowners who retrofit existing dwellings with renewable energy equipment, with no upper limit on the amount of the credit that can be received. Renewable resources include solar panels, solar water heaters, geothermal heat pumps, small wind energy systems and fuel cells placed in service through the year 2016.

Some states and power companies have their own incentive programs to promote solar and other renewable energy resources. California, for example, offers incentives for solar installations based on the expected performance of the system installed.

Winkler, who is employed by Professional Community Management of California, plans to promote these incentives to individual homeowners in Ocean Hills by providing information they can easily apply because of their homes' similarity in age and design. In condominiums, the association itself can undertake energy-reducing improvements and pass the tax savings on to unit owners. For example, a condominium association of 40 owners could invest $200,000 to install energy efficient equipment and pass the 30 percent tax credit—a savings of $60,000—to the unit owners. Each owner could receive a tax credit up to $1,500. The tax savings would effectively reduce the project's cost to $140,000—in addition to the annual savings from lower energy costs. The association itself is not eligible to take the tax credit.

To pass on that tax savings to unit owners, condominium boards should segregate the funds spent for the improvements and keep accurate records of each owner's share of the expenditures, says Richard Blalock, a certified public accountant in St. Louis. By assessing owners individually for the project and keeping those funds separated from operating and reserve

funds, the association receives an additional tax benefit. This allows the assessments that unit owners pay for the project to be treated as capital contributions to the association, removing the risk that the assessments will be taxed as income, he says.

An association can use existing reserves to fund the project. But, if the project is not in the reserve study, the board should notify members in advance that it intends to change how the reserve money is to be used, Blalock says. (While this usually is a board decision, check your governing documents to be sure.) Nonresident owners don't qualify for the tax credit even though they pay a share of the expenditures.

The stimulus package also provides $300 million for rebates to homeowners who replace older appliances with efficient Energy Star products. For example, Energy Star central air conditioners are at least 20 percent more efficient than other new air conditioners and may be twice as efficient as some existing systems, according to the Consumer Federation of America.

Another $5 billion will be added over the next three years—nearly eight times the current annual level—to the Weatherization Assistance Program. The program provides funds to local agencies to insulate dwellings of low-income homeowners. In most states, families earning double the poverty level, or $44,100 for a family of four, would qualify. The program has reduced energy consumption by more than 20 percent in about 6.2 million homes since its creation in the mid-1970s. Last year, the typical home saved $400.

Energy efficiency and conservation block grants are funded at $3.2 billion nationally. The grants are aimed at reducing fossil fuel emissions and total energy use and improving energy efficiency in transportation, buildings and other sectors. Funds could be used for residential and commercial energy audits, for buildings and facilities of public schools and for public water supply and waste water systems. Much of the funding will be available to larger cities and counties. An additional $500 million will go to states, which must send at least 60 percent to cities and counties not receiving direct funding. With federal approval, states will distribute the remaining 40 percent of the funds for use in revolving loans and grants to nongovernmental organizations.

WHERE TO START?

An energy audit is the best way for community associations to begin exploring their options. It can help identify the most cost-effective ways to conserve energy in residential buildings and community facilities.

Homeowners can use do-it-yourself audits found online. The Energy Department provides one. Another is offered by the Alliance to Save Energy.

But a professional energy audit should be used for condominium buildings because it offers more detailed information. An energy audit measures a building's energy loss and evaluates the walls, windows and other components to suggest the most cost-effective ways to cut energy costs. Using a powerful fan called a "blower door" to pressurize the building, energy auditors can find the places where hot or

cool air escapes the building, according to Mitchell H. Frumkin, PE, RS, CGP, president of Kipcon Inc. in North Brunswick, N.J. Sealing these leaks with caulking or weather stripping can achieve major energy savings, Frumkin says.

Along with the blower-door test, energy auditors may use infrared cameras to measure building surface temperature, which can help to identify air leaks and missing insulation. Insulation is a relatively inexpensive item that can reduce energy costs by up to 30 percent, according to the Energy Department. Updating to an energy-efficient furnace also can achieve great savings. Replacing single-pane windows with double-pane windows that have high-performance glass can cut heat loss, Frumkin says.

One simple step that any community association can take is to replace incandescent light bulbs with compact fluorescent bulbs. They're more expensive, but use less power and last longer. An Energy Star-qualified fluorescent bulb will save about $30 over its lifetime and pay for itself in about six months, according to the Energy Department.

Locate a professional energy auditor by contacting a state or local government energy or weatherization office. Local electric or gas companies may also conduct residential energy audits. Also, the Energy Department website offers guidance.

Improving energy efficiency calls for association boards to take a long-term view. These are investments in financial stability. Of course, it also requires associations to obtain additional funding for improvements that have an extended return on investment. Many banks offer loans for such projects and should factor in the energy savings to determine whether an association qualifies because the savings improves the association's ability to repay the loan.

"Every community association board and management company should explore every possible option to reduce their carbon footprint and conserve energy," says Margey Meyer, CMCA, PCAM. "Not only is it good for the environment but, with the tax credits available, it's good for the association's bottom line as well."

Rising energy prices alone create a great financial incentive for community associations to choose to become more energy efficient. The economic stimulus package, with its array of financial incentives, creates a greater opportunity. With more than 20 percent of all U.S. residences, homeowners, and condominium associations are in a unique position to help the environment and their budgets at the same time.

Common Ground, July/August 2009.

GROWING ON GARDENS

By Kim Fernandez

Community gardens are sprouting up in common areas and on rooftops across the country. They can be a huge success—from seed to harvest.

Margaret Seals enjoys gardening, and Georgetown, Texas, offers a climate that accommodates her hobby year-round. Thanks to a massive 6-acre garden she shares with her friends and neighbors, chances are good you'll find her working the dirt or chatting with others about their plots throughout the year.

Seals runs the Sun City Horticulture Club, which oversees and maintains the community garden in Sun City Texas Community Association, an active adult community in Georgetown. Started in 2005, the garden currently features 265 raised beds; the club has more than 400 members.

The garden attracts plenty of residents, supplies produce for a local food bank, hosts part of a summer camp for residents' grandchildren and provides space for everyone—from master gardeners to amateurs—to grow, learn, and socialize.

Community gardens are a growing trend, sprouting everywhere from New York City rooftops to vacant urban lots and huge plots of land in the country. While each is structured differently, the gardens provide members with individual plots within a shared space. They range from the simple—a few raised beds spaced across a rooftop—to the ornate; Sun City's garden has its own beekeepers and storage barn and is close to the community's vineyard, where many club members also work.

Residents say the plots let them garden without worrying about taking care of their own yards, which is a huge plus, particularly for older gardeners. Board members and association managers say gardens are a fantastic way to encourage outside hobbies, let neighbors get to know each other and strengthen the community bond. Gardens also become a bit of a marketing tool to attract new residents.

That's not to say they're without challenges. There's always the risk of gardeners losing steam midway through the season and abandoning plots. There also are those well-meaning individuals who hope to harvest very tall plants, which block sunlight and attract pests, or start out with creeping vines that might encroach on other plots. Fences become dilapidated, tools get left in common areas and someone else might have to maintain open plots.

However, most issues are resolved without a lot of intervention or hard feelings, and residents flock to their gardens year after year. Many association managers say the gardens are a simple thing that elevates their communities over the nearby competition, and they wouldn't think of giving up on them.

PLANTING THE SEED

Sun City's garden started in 2005, when Pulte Homes donated nearly 6 acres and $10,000 for the project. The community's residents did their own fundraising to cover the rest of the cost.

Some of its design was practical. "All of the plots are above ground," says Jim Romine, CMCA, AMS, PCAM, executive director. "We have limestone under the ground. It would cost us a fortune to dig down."

Soon after the garden got started, the community dug a well nearby and ran trenches to irrigate the plots. Horticulture club members erected a barn to house their equipment and hold meetings and have run everything since, from the original excavation to daily maintenance. "It's incredible what these people, averaging 70 years old, have done out there," says Romine. "We, as a staff, have not gone out there and dug rocks up or anything."

And it all goes way beyond tossing seeds in the ground and giving plots an occasional weed and feed. Club members make their own mulch, host plant sales to raise money and visit abandoned plots to rescue the plants and redo the beds for the next occupants.

"We have a board of directors, and we have rules everyone must abide by," says Seals.

The club is completely organic, prohibiting the use of any kind of chemical pesticides. Sun City residents must be members of the horticulture club and pay a $12 annual membership fee to use the gardens. Members also are charged a $25 plot rental fee per year. The club provides free well water, sand, and horse manure for all members.

Sun City club members can garden virtually year-round, which keeps interest high. But other communities make do with the weather they have, still with success.

Larry Lynch, department of property and environment manager for Pagosa Lakes Property Owners Association in Pagosa Springs, Colo., says his property has had a community garden for three years, and despite a short three-month growing season, it's gone very well.

"Five or six years ago, some people started a community garden downtown," he says. "At the same time, a local farmers' market started to form. And there was a lot of push toward local produce and local sustainability. All of that kind of opened people's minds a little bit, and the idea of growing locally produced food or growing your own produce for your family and friends really started to take off."

Lynch ran a blurb in the community newsletter to ask if residents might be interested in their own garden on the property. "We thought maybe the property owners association could help out and make it a community project," he says. "We got a pretty strong response—about 15 owners called right away, as soon as they got the newsletter."

In the fall of 2008, the association's board of directors authorized $4,000 to help develop and build a community garden. The following spring, a plot was chosen behind the association's offices. A split-rail

cedar fence was built and wrapped with wire to keep deer out, and 14 above-ground beds were constructed using redwood for their walls and topsoil to fill them. A small storage shed was added, and the gardens opened for business.

Currently, the property's garden has 18 beds, and all are taken. Lynch says there's room for four more beds in the existing plot and room to move one side of the fence to expand if there's more interest. "There is zero cost to us," he says. "The board has always been very supportive and paid for the original construction."

He says residents have flocked to the gardens, and there's a lot of interest. And for some properties, that's held true for decades.

Spring Lake Condominiums in Bethesda, Md., has featured a community garden since the mid-1970s, and currently offers about 30 plots to residents every year. Resident Larry Hothem has managed the garden since its inception and says it's always been pretty popular. He assigns plots on a first-come, first-served basis every year, giving preference to returning gardeners who'd like to retain the plots they had the previous season. If there are plots left over after the spring application deadline passes, he offers gardeners the chance to pick up second plots.

GROWING RULES

Like Seals, Hothem says establishing rules is vital to keeping a shared garden going. A few times a year, he has to call his neighbors and ask them to clear out or clean up their plots. Most readily comply, but if they've moved or he can't reach them, he's not above going out and clearing the area himself.

"I'm out there maintaining the common areas," he says. "I'll just go over and take care of a plot if I have to." He says no one's ever complained. "They know I'll do it," he says with a laugh.

Spring Lake Manager Bonnie Henderson says Hothem runs the gardens like a well-oiled machine, and that's a huge reason it's been so successful. "We have a map of the garden, and people can come in and pick which (plots) they'd like along with alternatives," she says. "If someone had a plot one year, and they come back between January and March the next year, they get preference over that same plot. They pay $10 to Larry, which covers his costs for tools and supplies."

Residents have access to a common hose that's only used for the gardens, she says. And while Spring Lake doesn't provide a tool shed at the gardens, there are rules about how and where residents can keep their supplies.

"They have to keep tools in their units or on their balconies, and if (tools are) on the balcony, they have to be kept in a container that's long enough and not higher than the railings," she says. "We don't let tools lean up on walls." Some residents opt to dedicate part of their basement storage units to their gardening supplies.

All of that, she says, helps keep the entire property looking nice, which in turn, makes the garden more of an asset.

“Larry maintains the area between the plots,” she says. “He weed-whacks the grass, checks the wood frames to make sure they’re in good shape and sturdy, and he drops off notes to people who have to come do their weeding.” He also ensures that plot users follow the rules: No plants can creep out of the raised beds, and nothing can grow too high as to obstruct sun or the view.

Seals says a similar system works in Sun City, where club members volunteer to act as property monitors, keeping an eye on things to ensure everyone’s following the rules and keeping the area appealing.

“The number-one concern we have is the safety of our members,” she says. “Nobody can leave their rakes or hoses in the aisles where someone else could fall. With our age group, the number-one thing we’re interested in is not being injured.” Club members offer lessons periodically on gardening safety to demonstrate proper tool usage. All new garden members are required to attend an orientation before they can start digging in the dirt.

And when there’s a problem with a bed, she says, most times, there’s a reason for it. “Most of the time, we find that when someone is neglecting a bed, they’ve either gone on vacation or forgotten to tell us, or they’ve had an illness,” she says.

BLOOMING COMMUNITY

Henderson says Spring Lake’s garden has not only provided recreation and exercise for its members, but also helped boost community spirit, as they all pitch in to help each other from time to time. That extends to staff as well, she says.

“They can start gardening in March,” she says. “Our maintenance men offer to turn the ground over for something like $10.” She says staff also helps residents clean up their plots if assistance is needed.

Seals says that sense of community is a huge boon to her community’s gardens. “We look after each other. Some of our members go from frail to fragile in a short amount of time,” she says. “We’ll work their beds for them until they recover.”

Romine says the efforts of the club benefit the entire community by beautifying the property and providing food and involvement for residents. “They have a lot of special interest groups,” he says of the gardeners. “Some of them grow nothing but herbs. There are some who work with bees and produce honey every year. And our winery produces 70 to 80 bottles of wine annually.”

Club members who live in Sun City during the winter and go elsewhere during the summer offer up their beds for the part of the year they’re gone. Other members then use the plots to grow produce for the local Caring Place food bank. Seals said they grew more than one ton of vegetables for the food bank last year.

They also work together to rescue plants from beds where they’re no longer wanted and recycle organic materials into compost that members can purchase by the bag. Their membership boasts 25 master gardeners who offer their expertise to others on a regular basis.

Lynch says a similar thing happens in his community’s garden. “The more experienced gardeners help the less

experienced," he says. "They'll help with seed selection and talk about what will grow here and what won't—we're at a 7,200 foot elevation. They've taken on its management. After the initial construction, our staff's time commitment has been minimal. It's become their garden, and they take really good care of it."

Gardens also are a great selling point. "Pulte's sales folks love to take people out there," Romine says of his community's garden. "It's beautiful, and it really works well with our active adult lifestyle."

Common Ground, May/June 2011

HARVEST THE GREEN

By Tamara Lytle

From simple, everyday practices to comprehensive energy-saving approaches, more communities are choosing to protect the environment and save money.

Across the country, communities are going green. Whether they're using home designs that vastly reduce utility bills, implementing volunteer programs like a "bottle brigade" of resident trash collectors, or participating in a recycling program that delivers residents' compost to a nearby organic farm, residents and developers are finding innovative ways to create green communities.

In a slumping economy, homeowners and builders are finding that going green can also mean saving green. Homeowners say they are drawn to homes that cut down on energy and water costs because they're economical. And builders and developers find it's a way to set themselves apart in a difficult market.

"While the traditional residential construction is slowing, green construction is expanding," says Ashley Katz, spokeswoman for the U.S. Green Building Council, a nonprofit group that promotes sustainable development. McGraw-Hill Construction's 2009 Green Outlook report found the value of green building had jumped from $10 billion in 2005 to more than $36 billion in 2008 and likely will be more than $96 billion in the year 2013.

Kaid Benfield, director of smart growth at the Natural Resources Defense Council, says the push for green comes from seeing what has gone wrong. People worry about global warming, and they sit in traffic jams and see their favorite green spaces disappear, he says. "It's much more a part of the national conversation ... than it was 10 years ago or five years ago."

The U.S. Green Building Council has developed the Leadership in Energy and Environmental Design (LEED) program to certify buildings that meet environmental benchmarks, and the National Association of Home Builders (NAHB) has a National Green Building Standard program as well, to name just two.

"There is a very significant change in the attitudes of builders and their customers with regard to energy efficiency and sustainability—green building," says Thomas Kenney, vice president of engineering and research at the NAHB Research Center.

But new developments aren't the only ones that can turn green. Existing community associations and individuals also can take steps to make their communities environmentally sensitive. They can benefit from tax breaks, utility savings and a healthier place to live.

Oh, and it's good for the earth. Here are four communities that have led the way.

ARMORY PARK DEL SOL, ARIZONA

John Wesley Miller first got interested in environmentalism during the energy crisis of the 1970s. He worked environmental elements into his Tucson custom home-building business over the years and then bought a weed-covered area of less than 14 acres in downtown Tucson.

"I thought this would be a good place to demonstrate all the things I had learned from 50-some years," says Miller, 75. "It's more than making money. It's the satisfaction you get from doing something for your community—and in this case good for the whole planet."

The more than 90 single-family homes in Armory Park del Sol are all designed with solar-generated hot water and electricity. Miller and residents say their electric bills are half that of traditional homes. Despite the power for air conditioning needed to counter Arizona's blazing heat, electric bills are only about $300 a year. The homeowners association president, Michael Katz, says he just got a four-figure rebate from the electric company for having solar power. Katz says paying extra for the home and its environmental features was worth it, especially since he got tax breaks and lower electric bills.

"The neat thing about living in a solar home is, every time utility rates go up, it's like getting a dividend on a share of profit," Miller says.

Miller also included energy-efficient heat pumps and windows, and he used masonry construction that is concrete with insulation on the outside to trap warm or cool air inside. The green features are hidden within Victorian, Pueblo and Craftsman style architecture, and Miller takes pride that they fit into the historic neighborhood so well that passersby don't realize they are new.

"You can't tell it's a green neighborhood unless you notice the solar panels on the roofs," Katz says.

The homeowners association is keeping up the green tradition. Trees so tall they shade solar panels must be trimmed. Plants that use a lot of water are forbidden. And trees that cause lots of allergies are banned, such as olive and fruiting mulberry trees.

After four years living there, Katz realizes that in addition to being green, the community was designed with friendliness in mind. Miller used an unusual layout. Homes face each other across a sidewalk instead of a street, which means neighbors get to know each other, and the wide sidewalks make it easy to walk to nearby cultural amenities and some jobs. Some of Katz' fellow faculty members from the University of Arizona even bike to work.

The urban infill project allows the community to take advantage of public transportation instead of causing sprawl. "Probably on average we saved at least one car every other house," Miller guesses.

The houses—almost all the lots are sold now—average $500,000 and range from 1,000 to almost 2,200 square feet.

One major departure from most developments was that Miller made solar energy standard for all houses. That led to

many more airtight homes as the building trades got the hang of it, says Joe Wiehagen, senior research engineer at the NAHB Research Center, which advised Miller. Wiehagen also says Miller learned from his mistakes on things like better sealing and insulating ducts and pipes. That's something any homeowner can do, as is installing a solar hot water heater that is eligible for tax breaks. "These incentives are around, but often not utilized fully," Wiehagen says. "Investigate and use the incentives that are around—it can get you over the hump from thinking it's too complicated to happen."

SERENBE, GEORGIA

Pilot Pam Hollis used to see the lush hills south of Atlanta from the air. It was a big contrast to the developing areas north of the city that "looked like the earth had a sore in it."

That inviting green space 20 miles south of Atlanta's Hartsfield-Jackson International Airport existed because Steve Nygren had a moment of panic. He had retired from his restaurant business and moved to the area with his wife and three young children. The kids could roam free, the parents could jog past deer, and the city seemed far away. Then one day on his morning jog, he heard bulldozers pulling down trees in the forest next door.

"We were concerned urban sprawl was going to ruin the area," Nygren says. He got zoning officials to cordon off 40,000 acres to limit development. His part of that area—1,000 acres—is now called Serenbe and so far has 100 homes. The high-density development allows 70 percent of the land to remain open space. Homes abut forest, farm, pasture or wildflower meadows. And storm water runoff is slowed and collected in bioretention swales—natural areas that have special soil and plants to help absorb and filter water—and then returned to the land instead of to sewers.

Overall, the Serenbe units are 25 percent more energy efficient than standard homes. Some environmentalists criticize projects like Serenbe that aren't close to city centers because residents consume energy and pollute by having to drive to destinations in or near the city. But Gray Kelly, director of sustainable development at Southface Energy Institute, says "an energy inefficient house can pollute as much as a long commute."

And Serenbe is designed so that residents can walk on trails threaded through the development to a quaint downtown area.

Pam Hollis owns one of the stores. She sells environmentally friendly merchandise like bamboo furniture and clothing made of sea kelp. Each home buyer pays a fee to the Serenbe Institute, which conducts environmental education programs.

An organic farm provides produce for residents and the three community restaurants. The compost for the farm comes from residents. Hollis, who heads the association's environment and recycling committee, says a garbage valet with a golf cart and trailer picks up trash, recyclables and compost from underground storage containers at each house.

While most Americans take out large containers of trash and small bins of

recyclables, Serenbe residents do just the opposite because they are such enthusiastic recyclers, she says. It's part of the culture, and more important, it's easy, says Hollis, who previously lived in the Buckhead neighborhood of Atlanta.

Her energy bills are now much lower because of the green building materials and energy-efficient appliances. And Serenbe bars grasses, so she's saving about $150 a week on landscaping services compared with her Buckhead home, where she spent up to $700 a month in the summer for water. Her native plants use recycled water for irrigation now. "When people say it's too expensive to live this way—it's too expensive not to. "

Serenbe homes cost more than conventional homes in the area. They range from one-bedroom condominiums to 7,000-square-foot mansions, and current prices go from about $320,000 to $1.2 million. All homes have some sort of environmental certification, such as EarthCraft from Southface Energy Institute. The Urban Land Institute awarded Serenbe its 2008 Sustainability Award.

Nygren's green community concept was considered outré just six years ago, he says. Now, it's not only more popular, but the cost of environmentally efficient materials has come down. "One of the most important things for developers and communities is to understand environmental responsibility is not a sacrifice, it's an asset," Nygren says.

THE LANDINGS, GEORGIA

The view from many homes at The Landings on the Georgia coast is literally green—marshes filled with native plants. There also are egrets, deer and the occasional alligator.

The community has 4,500 home sites below a natural canopy of trees that was preserved during development. About 150 plant-filled lagoons filter storm water and absorb nutrients that have run off from the six golf courses.

"It just looked appealing, it looked green," says resident Callie Ryan, who didn't even know about all the development's environmental features when she and her husband moved from Columbus, Ohio, to retire there.

Homes in the development, which is 90 percent complete, range from $300,000 condominiums to $5 million custom-built homes.

Although environmentalists often raise their eyebrows at golf course communities, Sean Burgess, environmental coordinator at The Landings Association, says many steps are taken to make the golf courses green in more than just color. Audubon International, a nonprofit educational group, has awarded four of the courses Certified Audubon Cooperative Sanctuary status. Audubon International, which is not affiliated with the National Audubon Society, also gave the entire development a Neighborhood for Nature award. "We welcome The Landings Association's commitment to the environment and to managing the neighborhood with wildlife in mind," says Joellen Lampman of Audubon International.

Liquid fertilizer is injected into the

irrigation system so less is needed and fewer pollutants run off. And the sprinkler system checks the soil for evaporation so water is used only where it's really needed. Out-of-play areas along the courses have vegetation like wax myrtles, azaleas and bottle brush to provide food and habitat for wildlife—good news to the community's active bird-watching group.

In the center of the island, residents can walk along a trail through a nature preserve that displays native vegetation and get ideas for appropriate landscaping. Common areas, such as median islands between road lanes, display crape myrtles, azaleas and other vegetation that needs little or no fertilizer or irrigation.

Ryan heads a nonprofit group called The Landings Landlovers that raises money for education and volunteer projects, including many aimed at the environment. The group has funded a nature trail, a recycling center and nesting boxes along the golf course for bluebirds.

The neighborhood isn't covered by a government-run recycling program so The Landings built a center where residents can drop off paper, plastics, cans and even Goodwill donations. "It's kind of one-stop shopping," Burgess says.

Volunteers monitor the bluebird boxes. Boy Scouts help eradicate invasive plant species. And a "bottle brigade" picks up trash—with each person assigned a sector around the island. (Then they meet for cocktails.)

Burgess says the many volunteer efforts provide a lesson any community association can use to improve the environment. "The backbone of our community is our volunteers. They allow a lot of things to happen with minimal cost."

DEL SUR, CALIFORNIA

What do you get when you put together old blue jeans, sunflower seeds, a 125-year-old Pennsylvania barn and an Oregon pier?

The centerpiece of a green community, believe it or not. All those materials are part of the Ranch House, a welcome center at Del Sur, a San Diego community that will ultimately comprise about 2,500 homes and 469 subsidized apartments clustered on 1,800 acres. So far, 500 houses and 204 apartments have been built.

Twenty percent of the homes have solar electric systems, all have tankless hot water and 60 percent of the land is preserved as open space. Builders recycled construction waste, reducing it by more than 89 percent. For instance, they mulched leftover building lumber, which is now available to residents.

The development has won a string of environmental awards. The Ranch House received a rare "platinum" LEED rating by the U.S. Green Building Council.

"It sets the context for the community forevermore. It's quite a beautiful thing as well," says Carolyn Chase, an active Sierra Club volunteer who headed up the local chapter when it endorsed the project during the planning.

Those recycled blue jeans insulate the Ranch House building, which likely will be an association facility once the entire

project is completed. The barn wood was used as flooring. The pier was used as beams. And the sunflower seeds were made into countertops.

"Sustainable has meant a lot more to us than the cliché," says Del Sur's developer, Fred Maas, president of Black Mountain Ranch LLC. He started planning the project 20 years ago, long before green building was trendy. "Doing the right thing in a city sensitive to these issues made business sense."

In drought-prone California, water conservation is especially important. The community requires that half of all landscaping be drought tolerant. Reclaimed water is used to irrigate common areas. And homeowners have smart irrigation systems that use satellites to factor in weather, the type of plants nearby and other conditions. The tankless water heaters save 12,000 gallons of water per home each year as well as energy.

"We made water conservation part of our credo," Maas says. "It's as big an issue as energy" in California.

The solar electric system added as much as $20,000 to the cost of each home. But homeowners like Ruth Loucks who don't have solar power are thinking about adding it as they see how much their neighbors are saving on electricity.

Loucks, a member of the association's design review committee, was the first resident of the community three years ago. She didn't know much about the green aspects until she bought her home. Now, she says, her eyes have been opened.

"I don't think I'd move to another community unless it offered some kind of environmental amenities. It's being responsible and being a good steward of the land."

The apartments subsidized by the local housing authority also incorporate green design.

Chase says the biggest environmental shortcoming of the project is its suburban location—environmentalists always worry that large developments miles from downtown create sprawl. But, she says, Maas has backed transit projects. And his site design preserved important habitat corridors for wildlife. Maas says the community will eventually have a shuttle bus to take commuters to a nearby highway to catch express buses downtown.

Chase says Del Sur's greatest victory is incorporating environmentalism into every part of the community, from building materials to recycling to layout.

Doing just one thing is not very impressive, Chase says. "What matters in green design is the integration of a sustainable approach in every single aspect ... to add up to something better."

Common Ground, July/August 2009

MOWED OVER

By Mike Ramsey

Drought conditions are forcing community associations, homeowners and state legislators to rethink the obsession over green lawns. Time to wise up.

With the last of her front lawn dying in California's lingering drought, Fran Paxson made plans to replace it with something that required much less maintenance.

"Not even the mother of all El Niños was going to bring the lawn back," says the 83-year-old retired teacher. "And so my thought was to take out the lawn and do something along the lines of drought-resistant landscaping."

She wanted to install a blend of dry elements and low-lying mint plants, with a drip irrigation system. As for turf, Paxson says she was done with it. No more grass.

The architectural review committee at her San Ramon homeowners association had a slightly different idea in mind. She says panel members told her the design would need to be at least 25 percent turf to meet the community's aesthetic standards.

Paxson pushed ahead with her own plan and received a violation notice and a $50 fine. Last summer, she contacted a Bay Area television station, and media outlets began pursuing an unflattering narrative: Community association beats up on conservation-minded senior.

"It was a bit of a circus around here," Paxson says. "It gave anybody who ever had a gripe with a homeowners association a platform to get started all over again."

According to manager Tom Bantz, CMCA, AMS, whose portfolio includes Paxson's community. About 15 percent of the nearly 500 single-family homes at Twin Creeks South Estates feature some drought-resistant landscaping, he estimates, though Paxson's entirely turfless design was a little unprecedented.

He says he was advising her on how to make an appeal before the board, but Paxson chose to circumvent the process.

"I think I had the board leaning to go her way," says Bantz, co-owner of Homeowner Association Services. "But when they saw what had already been done, they just said, 'This is enough. We can't have homeowners doing what they want to do and thumbing their nose at us.' "

Michael Mau, a San Francisco real-estate attorney sympathetic to Paxson's position, offered her free legal services to challenge the penalty. They sent the board a response letter. Bantz says he advised the board it wasn't a battle worth pursuing; after consulting with the association attorney, the fine was rescinded and the matter dropped, he says.

The story didn't end there, however. It drew the attention of legislators, and California became the latest state to pass a law obligating community associations to allow drought-resistant landscaping, also known as "xeriscaping," in place of turf. The so-called "Brown Is Beautiful" mandate, which took effect Jan. 1, joins a measure that bars community associations from penalizing owners who reduce or eliminate watering their lawns during drought emergencies.

LOW-WATER MARK

Advocates for water conservation call such laws an appropriate check on boards because community associations have not always been realistic about what kind of landscaping is practical—or even desirable—in the nation's most parched climates.

"I had folks out in California in the last couple of years call me up and say, 'Hey, my homeowners association says we need to have this type of grass in our yard, and we need to sustain it, but we're under water restrictions,' " says Brian Fuchs, a climatologist with the National Drought Mitigation Center at the University of Nebraska–Lincoln. "At some point, you've got to be sensible when it comes to what's happening in your region, compared to what you would like to see in an ideal situation."

Drought conditions persist in some regions, especially the West and Southwest. A NASA study released early this year suggests things will only get worse over the long haul. Historic "megadroughts"—unrelenting, decades-long dry spells—could develop for much of the nation in the second half of this century because of greenhouse gases, the report says.

Fuchs says pressures caused by development also can exacerbate drought. He agrees the U.S. population increasingly will feel the squeeze of limited water supplies.

"People see themselves flush with either surface water, reservoirs or groundwater and say, 'We have enough, we'll always have enough.' Well, situations change," Fuchs says. "The climate is changing. Populations change. Sometimes even regulations will change. That will start dictating how that water is available."

Industry professionals concede the issue of water conservation is important. But they insist boards should retain ultimate control over design elements to preserve a community's integrity.

To that end, California's new xeriscape-friendly law gives homeowners associations the power to regulate drought-resistant landscaping. Boards may establish "reasonable" standards, says Adrian Adams, PCAM, founder of the California firm Adams Kessler. Those standards could be markedly different in a desert community compared to one in Los Angeles, he notes. "What an owner can't do is say, 'OK, I'm pulling out my lawn, and I'm pouring concrete. I'm going to concrete the whole thing in.' That's never going to fly."

RUNNING DRY

In recent years, at least three other states—Florida, Colorado and Texas—have

passed laws that protect drought-resistant landscaping within community associations. That hasn't prevented the occasional rift between individual owners and boards, underscoring the sometimes subjective nature of design standards.

The case of Renee and Jeffrey Parker is an example. The Orlando-area couple installed drought-resistant Argentine Bahia grass under the auspices of a 2009 Florida law that requires homeowners associations to allow "Florida-friendly" landscaping in yards. The broad description in the statute describes that term, in part, as "quality landscapes that conserve water, protect the environment, are adaptable to local conditions and are drought tolerant."

The Summerport Property Owners Association filed suit against the Parkers in 2012, asking the court to compel the couple to restore their front and side yards to community standards. Summerport requires a natural turf component of either St. Augustine or Zoysia grass, according to the defendants' attorney, Barbara Billiot Stage.

She says the Parkers had little luck with St. Augustine grass. The Bahia variety the couple favors is aesthetically pleasing, uses significantly less water and, as a bonus, naturally repels cinch bugs, she says. The law is unclear, Stage says, about what alternatives owners may pursue if their homeowners association rejects their vision of Florida-friendly landscaping.

"I agree (boards) should have some sort of regulation," she says, "but if they don't have someone educated to make these decisions, that's the problem. And of course, you're talking about unpaid volunteers. So, who's going to want to go out and study all the literature on this?"

The Parkers' case has proceeded slowly. Summerport's attorney, Robert L. Taylor, co-managing shareholder of Becker & Poliakoff's Orlando office, says the case is really a narrowly drawn dispute between the two parties.

He declined to discuss the lawsuit at length, citing its pending status, but says Summerport is in compliance with the law. "We believe our provisions are consistent with the Florida-friendly statute," Taylor says.

An argument about natural turf variety is less likely to take root in drought-conscious Colorado, where xeriscaping was developed in the early 1980s. In 2013, the state legislature barred community associations from requiring any natural turf in owners' yards. The statute, however, gives boards the power to impose "aesthetic guidelines or rules" requiring minimum amounts of vegetative cover on an owner's property.

"It can't just be a sea of mulch or rocks," says Jeff Kutzer, CMCA, PCAM, Colorado division president of The Management Trust.

In practice, he says, individual properties in Colorado communities have not become uniformly xeriscaped. Many property owners who have drought-resistant landscaping prefer to maintain some turf as part of the mix, especially if they have pets or children, he says.
Meanwhile, the law doesn't prevent community associations from pursuing owners who stop watering their lawns

altogether when utilities impose restrictions.

“It still allows the board to mandate that the homeowner prove he or she is watering the lawn up to the limit of the water restrictions,” Kutzer says. “A homeowner can’t just turn off the water and say, ‘We’re under water restrictions, I’m not going to water my lawn.’ “

Of course, community associations themselves are wrestling with rising water costs and looking at ways to save money while trying to preserve amenities such as swimming pools and golf courses. California communities are using strategies ranging from recycling water to covering pools to replacing the grass on medians with pea gravel or resilient plants, Adams says.

“When associations get those huge water bills for common areas every month, when their bills quadruple, there’s huge incentive for them, because it’s not in the budget, and they don’t like raising assessments. Those who like things the way they were quickly get on board,” he says.

Some communities, typically larger ones, are replacing older, inefficient irrigation systems with “smart” sprinklers that deliver water based on atmospheric conditions. Boards at smaller communities are weighing the upfront cost versus the long-term savings, Kutzer says.

One of his clients in Colorado, a 96-unit condominium complex, took 10 years to phase in an efficient landscape around eight buildings. Today, members spend 25 percent less on water in the summer months, he says.

“They understood that reducing turf over time will pay dividends in the long run,” Kutzer says.

GREEN AS GRASS?

Texas law requires homeowners associations to permit drought-resistant landscaping and water-conserving natural turf while empowering boards to require owners to submit plans for review.

“The problem is the law says the associations may regulate. In order for the associations to regulate, they have to pass regulations. The ones that get themselves in trouble don’t pass regulations,” says Marc Markel, a shareholder with Roberts Markel Weinberg Butler Hailey and a member of CAI’s College of Community Association Lawyers.

The Avery Ranch Owners Association, a 3,600-home community in Austin, passed a xeriscape-friendly resolution in 2009 to mirror a city ordinance. It specifies the types of materials that can be used for non-turf areas. The guidelines, for example, allow for water features and ornamentation, but limits the number of items in public view. For safety reasons, thorny or sharp-edged plants must be far from sidewalks, and tall plants cannot be stationed near the curb because they could obscure the vision of pedestrians and motorists.

“On any given week, we probably process one to two requests to have the xeriscaping done in the yards,” says manager Dick Cowan, CMCA, AMS, of

Associa Hill Country–Austin. “If I had to guess, 90 percent of people who do xeriscaping do so just for problem areas in their yards.”

One thing that doesn’t fly at Avery Ranch, at least on front lawns, is artificial turf. That came as a surprise to one owner who installed high-grade synthetic grass at considerable expense.

“He had a company come in from Arizona. They did a beautiful job, with rolling swales and everything else in his front yard. And unfortunately, the board made him remove it,” Cowan says. “As I told the gentleman, ‘You probably are 10 years ahead of yourself, unfortunately.’ “

Community associations tend to keep a tight control on artificial turf for a variety of reasons. Industry professionals say concerns range from the chemical composition of the material to drainage problems that could result if it isn’t installed properly. Observers say the aesthetic quality of the turf has made significant strides in recent years, and some foresee pushes at the state legislative level that may force boards to make room for the product in community associations.

“If the drought continues, I suspect it’s going to come up,” predicts Adams, the California attorney.

Artificial turf is acceptable on front lawns at Twin Creek South Estates, the Bay Area community that received bad press for its dispute with Paxson, the retired teacher who stood her ground on an entirely turf-less design. The board is updating its guidelines to allow for the material, says the manager Bantz.

Paxson says her municipal water utility gave her a $900 credit on her account after she switched over to a drought-resistant landscape. Sprinklers are just a memory for her.

“I’ve gotten a lot of positive feedback from all over the country. It’s amazing how far this thing went,” she says. “I have the utmost respect for homeowners associations if they are open-minded and not hide-bound to one particular thing. I think they need to open up their thinking.”

THE NEW LAWN

Molly Peacock, a lawyer based in the Washington, D.C. area, far from the epicenter of drought concerns, became so impressed with the concept of xeriscaping, she helped develop a seminar on the subject.

“It’s important to be aware of options that are different, especially if there are so many benefits, including visual,” says Peacock, founder of The Peacock Law Firm in McLean, Va. “If it saves a lot of money and saves the environment, then why not? Maybe there’s a moral obligation to at least suggest this option for both homeowners and the associations.”

For the uninitiated, xeriscaping refers to “water-wise,” or drought-resistant, landscaping. The Denver Water Authority coined the term in 1981 as professionals there developed sustainable landscaping techniques for Colorado’s semi-arid climate. The term combines the Greek word for dry, “xeros,” with the word “landscape.” Seven principles guide the practice: planning and designing; limiting turf areas; selecting and zoning plants appropriately; improving the soil; using mulch; irrigating efficiently; and maintaining the landscape.

The concept has become more popular, particularly in Western and Southwestern states, as drought conditions persist. Perhaps the biggest misconception about xeriscaping is that it emphasizes rock and other dry elements, when in fact some of the plants and flowers that practitioners use are lush and colorful. Salvia splendens and lantana camara, members of the sage family, and California poppies are a few examples of plants used in xeriscaping. Regardless, some people may not be willing to let go of the neighborhood ideal of uniform and manicured green lawns.

“You either love xeriscaping or hate it. ... (But) out of necessity, people do things and change things,” says Marc Markel, a shareholder with Roberts Markel Weinberg Butler Hailey in Houston and a member of CAI’s College of Community Association Lawyers.

Texas is among a handful of states that require homeowners associations to accept at least some level of drought-resistant landscaping on private lawns.

“If this type of issue is becoming more prevalent in legislative conversations, then it’s only a matter of time before it comes to Virginia, Maryland and D.C.,” says Laura Sheehan, a member of Peacock’s staff. “Better to be educated about it ... ahead of time.” —M.R.

Common Ground, May/June 2015

SOAK UP THE SUN

By Joe Cantlupe

As communities look for ways to accommodate owners' requests to install solar panels, they're also making hay while the sun shines and investing in their own systems. Here's how.

Five years ago, the Sun City Lincoln Hills Community Association board wanted to do something about the glare of skyrocketing utility bills.

The association, a 6,783-home development located just north of Sacramento, Calif., reviewed many cost-cutting proposals, including a plan to install solar panels on common areas.

The board tabled the discussion at the time because the move would've been too costly. But after an effort in 2012 to retrofit 2,450 streetlights with LED (light-emitting diode) bulbs, which is expected to save the association nearly a half million dollars over the long haul, it took another look at solar.

The board found solar expenses decreasing due to a greater demand nationwide, giving it enough cause to approve and install a thermal solar system in 2014 for all four of the community's pools. It then created a task force to review technology and financing options for additional installations.

By January 2015, Sun City Lincoln Hills found a suitable financial deal and approved a proposal by SunWorks, a California installer, to provide power at its Orchard Creek Lodge, a theater, conference and recreational area. The association added nearly 3,000 panels that sit atop metal support structures on seven rows of a covered parking lot at the lodge. The panels provide needed shade for cars in the summer and power the community.

"We had been looking at solar as an option for several years," says Chris O'Keefe, executive director of the community. "Our project might be the first of its size for a California homeowners association. The project has been well received in our community and is another example that shows that we take our financial and environmental responsibilities seriously."

The solar change is expected to provide heady savings: more than 1.5 million kilowatt-hours (kWh) of electricity and a $300,000 reduction in power costs per year. O'Keefe calculates savings over 25 years at $8 million. The association paid $2.9 million to install the panels but received sizeable tax credits.

"The project became feasible because SunWorks provided a partner who could take advantage of the tax credits that we couldn't as a nonprofit organization," O'Keefe says. "This reduced the building costs by about $600,000, which brought the return on investment down to a more reasonable 7.5 years."

The community asked residents to sign a "letter of assent," and more than 80 percent responded in favor of the installation, says O'Keefe.

"In addition to the cost savings, residents can take advantage of the covered parking, which considering the heat we get during the summer months, is a blessing," he says.

REWARDING ADDITION

When the Lakes at Red Rock, a community of 374 single-family homes and townhouses near Leesburg, Va., put its name in for an environmental award linked to their recycling efforts in 2012, its officials never dreamed that they would actually win it, recalls Dan Catlett, a manager for DCRE Management.

Lakes at Red Rock was competing against at least 50 other communities, and when it won the SC Johnson Green Choices Challenge and the $100,000 prize, the community was elated and then confused: What should it do with the winnings?

After much debate, the association spent its money on retrofitting lighting fixtures and at least $24,000 for a "deep energy retrofit" for solar power at its clubhouse, Catlett says. Since the installation in 2013, the community has saved an estimated 15 percent on its energy bill.

SHADE AND SUN

The Recreation Centers of Sun City in Arizona, one of the first senior centers developed in the country, opted to install solar panels in 2013 on 10 of its parking structures through a lease. The association, which includes 27,500 homes, seven recreation centers, eight golf courses, a 33-acre man-made lake and an open-air amphitheater, is leasing the panels for $578,283 per year under a 15-year agreement; lease payments increase every five years.

Because of its nonprofit status, the association wouldn't have been eligible for state or federal tax credits if it purchased the panels, says General Manager Jan Ek, CMCA, AMS, PCAM. The community needed an incentive and found one through the Arizona Public Service Renewable Energy Incentive Program.

The association estimates the panels are saving the community an average of $480,000 per year in electricity.

"The savings were considerable," Ek says. "Repairs and maintenance have been almost nonexistent, and the only issue we have to cover is the warranty."

When the community considered the solar panels for the parking decks, the idea was met with great enthusiasm.

"In a community of 40,000 to 45,000 people, we, of course, don't get everyone's approval," Ek says. "However, I have to tell you that the solar project has been very well received, and residents love the shaded parking. I've heard only one complaint about the appearance of the parking structures."

THE ROOFLESS OPTION

Condominium associations and their owners also have been able to reap the benefits of solar panels and have found a

way to avoid the problems of having them directly overhead or dealing with complicated property rights issues.

They're opting for solar panels in another way: a roofless solution that still allows them to help reduce their costs and their carbon footprint.

That's what the 47-unit Moose Haven Community Association, in Leadville, Colo., did last year. The community, nestled against the backdrop of the Rocky Mountains about 103 miles west of Denver and 38 miles south of Vail, added 109 solar panels, but they're located about a mile away in a solar farm.

The association and its owners, who agreed to the plan, "installed" a shared solar system through the Lake County Community Array. The contract was with Clean Energy Collective (CEC), which operates and maintains the panels. The shared arrays, which are available to all ratepayers in the participating utility territory, credit customers for energy production directly on utility bills, the company says.

Moose Haven, which dates back to the 1960s, saw itself as a progressive community and jumped at the chance to reduce utility costs, stabilize assessments and take steps to protect the environment. Before deciding to go solar, members weighed factors like taking out a loan to purchase the panels.

"The pros outweighed the cons, and the majority wanted to go with solar. None of the owners had their own installations," says Jim Hidy, the board president, who adds that the move reminds him of when the association entered into a plan with a cable and Internet provider to clear up the separate satellite dishes homeowners installed.

Moose Haven is charged about $17,000 per year for the panels or about $1,400 per month. To cover installation costs, the association received a five-year loan from a bank, tapped into its reserve account, received utility company credits and was granted a $55,709 renewable energy certificate rebate from the federal government, according to Hidy.

Under the agreement with CEC, Moose Haven anticipates its 33.2 kW system will account for 52 percent of its energy needs per year or roughly 55,250 kWhs. Tim Braun, a spokesman for CEC, anticipates the community will save more than $61,000 over 20 years. Over those two decades, he says the association will reduce its carbon dioxide emissions by more than 1.8 million pounds—the absorption power of 2,800 trees.

Scott Brown, an association board member, notes that the community is benefitting on a few fronts.

"One of the things we looked at was the long-term impact to keep the utility bills down and assessments from going up," he says. "And we don't have to worry about maintenance."

Hidy says he liked the flexibility of the roofless model and the suitability for its budget. He adds that having a community system also thwarts any potential disagreements that owners may have about panels directly over their roofs.

"We're trying to reduce our carbon footprint," Hidy says. "We're one of the biggest users of power in the county."

Now, the association also is providing recycling bins for residents and exploring a move to install LED bulbs in its streetlights.

The Lake County Community Solar Array was included in local power company Xcel Energy's Solar Rewards Communities program and was the 18th shared solar complex in the state, according to Braun. More than 75 percent of Colorado electricity ratepayers have access to solar through the arrays, he says.

We're building these facilities all over the country, and the trend is growing exponentially," says Braun. "(Associations) are reducing their operating costs and receiving credit for the power that is produced every month."

Common Ground, July/August 2016

PROFILES IN GREEN

By Yvette Moy

An individual pledge to recycle, take shorter showers, grow your own food or carpool is a good start to a green lifestyle, but associations that empower their owners and commit to sustainable practices throughout the community can have a much greater impact on the environment.

Today's associations are joining the green movement by cutting energy consumption for heating and lighting. They're recycling household gray water—discharge from bathtubs, showers, sinks and laundries—for landscaping irrigation. And instead of relying on new materials, they're reusing what they already have, such as grinding up old pavement to use as porous aggregate for driveways and parking lots.

New and well-established communities are taking steps to be environmentally sensitive on the grounds, in pools and ponds, on roofs and everywhere in between. Here are a few communities leading the way.

BRAMBLETON COMMUNITY ASSOCIATION, VIRGINIA

Brambleton, just northwest of Washington Dulles International Airport in Northern Virginia, was designed to incorporate traditional neighborhood features alongside pedestrian-oriented spaces and streetscapes. Currently, the community includes two pools, miles of public trails, tot lots, parks, sports courts and ball fields.

The association irrigates common areas through a recently updated, master-controlled smart system. "It will save the association about 30 percent in annual water costs," says Brambleton General Manager Rick Stone, AMS, LSM, PCAM. "The system takes into account moisture in the soil so it doesn't overwater. It will pay for itself in one-and-a-half years."

The association uses nonphosphorous fertilizers on common areas—and encourages residents to do the same in their yards—to lessen the impact on the Chesapeake Bay, according to Stone.

Native trees are planted in common areas, and meadows are seeded with native wildflowers to provide a needed habitat for local wildlife.

The community has about 4,000 homes now, but almost 400 are added each year. When the community reaches build-out with 9,000 homes, there will be a lot more trash. Brambleton is trying to get ahead of that problem by supplying residents with 32- or 64-gallon recycling totes. Since the association distributed the totes, each household has nearly doubled its recycling.

Brambleton partners with Recyclebank.com to encourage resident participation. "Recyclebank.com tracks homes, weighs trash and rewards people for green actions with points they can

redeem for food, magazines, sporting goods or restaurant meals," Stone says.

Currently, more than half of Brambleton's residents are participating in the Recyclebank.com program and earning rewards.

Other steps taken by the association include:

- Participating in the Loudoun County Green Business Challenge.
- Participating in a program that allows residents to monitor and update their energy use through web portals and smartphones.
- Partly powering one of its pools with renewable energy.
- Using LED lights in its main parking garage.
- Working with builders and developers to recycle construction debris.

CRABAPPLE LAKE & PARC, GEORGIA

Crabapple Lake & Parc Community Association in Roswell, Ga., recently dredged 9,500 cubic yards of silt—more than 650 truckloads—from a stormwater retention pond to keep the ecosystem healthy and recycled 80 percent of the silt by offering it free to local farms.

"All we asked was for the farms to cover the round-trip cost of trucking the silt to their properties," says Crabapple board member Maryann Malena.

And instead of using chemicals to combat algae in the pond, the community released 120 grass carp.

Since Crabapple was built in 1995, more than 30 trees have been planted. That, among other initiatives, contributed to the community's certification as a Wildlife Habitat from the National Wildlife Federation. The association was awarded the certification by providing the four basic habitat elements needed for wildlife to thrive: food, water, cover and places to raise young.

Meanwhile, residents are asking the association to rebuild some of the community's tennis courts, which have been deteriorating for years. Plans to construct new courts include deconstructing the old courts and pulverizing the court surface to create the new subsurface.

"By recycling the old surface into the new subsurface, we expect to reduce the cost of reconstructing our courts because we won't have to pay to cart the old courts away to a dump, and we won't have to pay for new material to be trucked in to build a new subsurface," Malena says.

Home to many young families, Crabapple also has encouraged children to walk to school. The 260-home association worked with the city to install a traffic light at its entrance and a sidewalk that connects the entrance with the school crosswalk. The city also placed radar speed limit readers at both ends of the school zone. Since pedestrian safety has increased, more people are leaving their cars at home and walking to school and other area activities.

The association's architectural review committee has been supportive of owners' efforts to go green too. The committee

developed a new standard for roof replacements that allows for shingles with an increased lifespan, improved weather resistance and better insulation.

Homeowners are replacing wood columns and attic vents with prefabricated plastic, and siding replacements now trend toward fiber-cement products, which are more durable and last longer. Tankless water heaters, rain barrels, and skylights also have been approved by the committee.

“Crabapple Lake & Parc residents not only support green projects and initiatives, but they are the driving force behind them,” Malena says.

The community switched its pool from chlorine to saline a few years ago. “Not only is this better for the environment, but our maintenance supply costs have been reduced as well,” Malena says.

And instead of buying new pool furniture this season, the association repainted and re-strapped its existing set. “It was both the economical and the environmentally responsible choice,” Malena says.

Malena believes Crabapple’s green efforts have succeeded because association leaders have focused on prevention, planned ahead and vowed to leave the community better than it was.

MUELLER COMMUNITY ASSOCIATIONS, TEXAS

A public-private partnership between the City of Austin and Catellus Development Corporation transformed a 700-acre, former municipal airport in the heart of Texas into a thriving green oasis.

In 2007, Catellus began redeveloping Robert Mueller Municipal Airport, just two miles away from the University of Texas at Austin, into a mixed-use community that currently has about 1,000 single-family homes, 800 apartments and 2,500 residents. By 2018, there will be 1,500 single-family homes, 2,500 apartments and condominiums, 900 row houses and 13,000 residents.

Stores and restaurants are within walking distance of energy-efficient homes, and dedicated bike paths and walkways along every street encourage residents to reduce dependence on cars.

Catellus partnered with the Lady Bird Johnson Wildflower Center to restore about 30 acres of Texas Blackland Prairie. Once buried under the airport tarmac, the rich clay soil was tilled and graded to slope away from new houses. Runoff drains to a catchment pond centered in the greenway. Dozens of native grass and wildflower species were seeded across the community to help conserve water.

Roughly 140 acres, about 20 percent of the community, are being preserved for parks, open space and rare landscaping.

Mueller is recycling old runway materials into street construction, reclaiming building materials from old hangars and converting historic buildings to public spaces. Additionally, Catellus is planting more than 15,000 trees, many rescued from a nearby pecan farm that is being demolished to make way for another development.

The association uses gray water in a community-wide irrigation system. Gray water has a lower pH than tap water and is absorbed better by plants, says Jennifer Haas Harvey, CMCA, AMS, Mueller community manager.

Meanwhile, residents often initiate their own green efforts. They created the Mueller Megawatt Club, for instance, to explore solar panels on their homes.

Businesses and organizations in the community are encouraged to go green too. Commercial buildings in Mueller must achieve at least an Austin Energy Green Building two-star rating or a U.S. Green Building Council Leadership in Energy and Environmental Design certification. The Ronald McDonald House became the first building in the city to earn USGBC's platinum certification, the highest rating. It is the first Ronald McDonald House in the nation powered by solar energy, according to Harvey.

Common Ground, September/October 2013

WHAT COMES NATURALLY

By Pamela Babcock

A master-planned community in northern Virginia was developed with nature in mind. Board members, staff members and volunteers work to keep that vision alive today.

Broadlands Association in Ashburn, Va., can count among its residents Falcor the gecko, Poseidon the water dragon, Lunabonovah the albino corn snake and a host of doves, bunnies, turtles, fish, toads, and a newt. Housed in the Broadlands Nature Center, the creatures are an integral part of the community that was dedicated to preserving and enhancing the natural environment.

When ground broke in 1995, the master-planned community rose out of a former dairy cattle pasture. Over the years, Broadlands has worked to keep that eco-based philosophy going through the nature center, a wildlife habitat, a popular Earth Day celebration, resident education and activities, partnerships and more. Nature literally runs right through the community. Stream Valley Park, which features 15 miles of trails, weaves through wetlands and woodlands, and links neighborhoods. Many of the community's residents take advantage of the trail system.

"One of our spectacular amenities is our trail system," says Sarah E. Gerstein, CMCA, AMS, PCAM, Broadlands general manager. "There are some really beautiful areas that the residents have the opportunity to walk, jog and bike through." Located about 33 miles northwest of Washington, D.C., Broadlands has 1,883 single-family homes, 1,211 townhomes, 78 condominium units, 532 apartment units and more than 3.5 million square feet of office and retail space. The community also includes three public schools, one private school, two churches, a daycare center, three pools, nine tennis courts, a fire and rescue station, three shopping centers and a visitor's center.

The Broadlands Nature Center and its hands-on exhibits, live animals, children's reading room and programming have been a major draw since opening in 2002. Visitors are welcome to explore several natural habitats, including ponds, a meadow and wooded areas. The center, which is run in partnership with the Audubon Naturalist Society, also offers adult workshops on topics like rain barrels, gardening, wilderness survival skills and beekeeping.

HOME TO HABITATS

The National Wildlife Federation awarded the community a Certified Community Wildlife Habitat designation in 2008 for its efforts providing habitats in backyards and in public areas like parks, school grounds, community gardens and businesses. The following year, the Broadlands Wildlife Habitat Committee started an annual Earth Day event to celebrate the certification and the environment and promote eco-friendly products and services.

Oya Simpson, chair of the wildlife committee, founded and organized the community's first Earth Day celebration, which drew several thousand residents. The community now partners with the Piedmont Environmental Council (PEC) for the event, which has become Loudoun County's official Earth Day celebration. In 2015, EarthDay@Loudoun Family Festival counted nearly 6,000 attendees and about 120 businesses, local organizations and schools.

"It really puts the community on the map at a time when families are seeking environmentally friendly and healthier communities," notes Simpson, a contractor for Loudoun County Community Outreach Projects.

The community has been working with its landscaping company to identify more areas where grass won't be mowed to help reduce stormwater runoff and air pollution and to increase the amount of perennials that could serve as pollinators. The community also recently worked with PEC and Loudoun County to retrofit one of Broadlands' stormwater ponds. After obtaining grants from the National Fish and Wildlife Foundation, the community installed floating islands and about 140 trees and 800 herbaceous, drought-tolerant plants around the pond to help reduce nutrient pollution in the water.

In addition, the committee regularly promotes sustainable landscaping with native and drought-tolerant plants. It is currently working with PEC and the association's landscaper to finish a native plant demonstration garden and wildlife habitat where residents can see how to incorporate such elements into their own yards.

"The goal is to learn and to understand the important economical and environmental value of sustainable landscaping, restore habitats, reduce or eliminate any kind of chemical use, and minimize air and noise pollution," says Simpson.

Meanwhile, the community's newsletter, appropriately dubbed *Broadland—Our Neck of the Woods,* shares articles about wildlife, nature and sustainability, as well as typical association news.

As if that weren't enough, Broadlands also works to support local businesses. A recent "Meet your Farmer" event was a tremendous success, introducing residents to four local community supported agriculture programs (CSAs). Residents can purchase a share in a CSA and expect local, organic and farm-fresh meats, cheeses, dairy products, eggs, fruits, vegetables and even flowers on a routine basis. Broadlands has more than 50 families participating in the CSAs; there are designated locations where owners can easily collect their weekly deliveries.

ECO-EMPHASIS

Things haven't always been perfect at Broadlands. In 2003, the community made headlines after more than a dozen new residents gathered at the nature center to hear why workers had cut down about 20 tall trees on common area. New trees were planted later.

Gerstein, manager of Broadlands since 2012, admits that it can be hard keeping the community's focus on nature.

Today, not all of the residents are as aware of and accepting of that emphasis. The association tries to strike a careful balance between those who want a more manicured look for their lawns and those who prefer a more natural appearance.

“We absolutely have our tree huggers who want to preserve as much of the natural environment as possible, but we also have people who are here just because Broadlands offers good housing, great schools and a tolerable commute,” she says.

Susan Kuklick, a covenants inspector and one of the first residents in the community, recalls the original developer, Mobil Land Development Corp., inviting residents to plant flower bulbs in common areas, giving them bulbs to plant in their own yards and offering to sell trees at cost from the landscaping service.

“It was hard in the beginning because this was a dairy farm. It was pretty bare, and there weren’t a lot of trees,” says Kuklick. “But they put a lot of thought into plantings, so now after 20 years, everything is mature. It’s a very pretty community.”

Today, Kuklick says some residents are upset about the current developer, Van Metre Companies, clearing trees for a commercial area, but that project has been in the works for a while.

“I think that if the original creators of Broadlands 20 years ago were to look at the community today, they would be happy about how it has turned out,” Kuklick says.

Speaking Broadly

Broadlands Association in Ashburn, Va., has more than 20 years of experience maintaining the community, building events and creating partnerships with the environment in mind and encouraging its residents to focus on nature. The association was developed with that mission, but existing communities can implement some of the same tactics and ideas.

COMMUNICATE AND EDUCATE. Be sure your community understands what you're doing and why you're doing it. For example, Broadlands General Manager Sarah E. Gerstein, CMCA, AMS, PCAM, says she and board members have fielded questions about the use of pesticides in common areas. She explains that the community has to consider both the cost and effectiveness of the products used on the community's landscaping.

CONSULT WITH PROFESSIONALS. If your community is thinking of using more native plants or moving toward a more eco-friendly design, ask subject-matter experts about the costs, potential benefits and drawbacks. Broadlands, for example, tries to avoid invasive plants and instead invests in native plants like butterfly weed, milkweed or witch hazel, a shrub. Search for native plants at www.wildflower.org.

DO YOUR RESEARCH. Find out more about sustainable landscaping at www.sustainablesites.org. It's a resource used by landscape architects, designers, engineers, architects, developers, policymakers and others to align land development and management with innovative sustainable design.

CONSIDER AESTHETICS AND TIME. It often takes several years for plants to mature. "We're moving toward using more native plants, but some of those natives look more like weeds when you first put them in," says Gerstein.

FIND A CHAMPION IN THE COMMUNITY AND LOOK FOR PARTNERSHIPS. The National Wildlife Federation's community certification program offers plenty of resources to get you started, but you'll want a volunteer who will be able to lead the way. www.nwf.org/Garden-For-Wildlife/Create/Communities.aspx

START SMALL AND DOCUMENT SUCCESS. If you have a really successful project, note the steps you took to get there and why it worked. Doing so can increase the chances of buy-in for bigger projects.

CREATE SANCTUARIES AND DEMONSTRATION GARDENS. By using a variety of plants and flowers in common areas, you provide residents with a place where they can relax and consider taking some of the same steps. "Communities should be bold and colorful and unique in their own way and landscaping is one way of doing that," says Oya Simpson, chair of Broadlands' Wildlife Habitat Committee. "Having everything be so groomed may be the way it's been for many communities, but be brave and give something new a try."

BUDGET GREEN. Broadlands spends about $58,000 annually to house its animals and provide nature center programming. The annual landscaping budget totals $963,000; it includes tree and pond care, watering and mowing, and various projects to make the community more eco-friendly. The community also works with an arborist who inspects Broadlands trails several times a year to ensure any damaged trees are removed before they become a hazard to residents. The Wildlife Habitat Committee budget is $3,200 this year. *—P.B.*

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