

SPECIAL REPORT

Going Green

Local companies find a variety of ways to protect the environment

BY STEPHENIE OVERMAN

Can you imagine finishing a meal by eating the very same utensils you used to consume it? How about the ability to choose between plain, sweet, and savory flavored edible utensils? If the folks at The Mather have their way, plastic utensils will soon be a thing of the past and the planet will be better for it.

And it's not just The Mather that's committed to the health of the environment. Lots of companies in Northern Virginia, including Washington Gas and BOWA, are finding ways large and small to support sustainability and to incorporate "green" practices into their businesses and the community.

PLUGGING LEAKS

As part of its commitment to going green, Washington Gas has invested more than \$760 million to replace and modernize its distribution pipelines.

"Climate change is a very major issue for all of us. We do this because we as a company have a responsibility," said John O'Brien, executive vice president of



BOTTOM: Washington Gas has 289 natural gas vehicles and is adding dedicated Compressed Natural Gas (CNG) and bi-fuel CNG vehicles to its fleet in a continual effort to reduce its per vehicle emissions. **LEFT:** The company's Springfield facility is LEED Gold certified.



strategy and public affairs for WGL Holdings Inc. and Washington Gas, now owned by AltaGas Ltd.

The Virginia State Corporation Commission (SCC) approved the company's initial application under the Steps to Advance Virginia's Energy (SAVE) Act in 2011. The act allows natural gas utilities to implement a SAVE plan encompassing eligible infrastructure replacement projects. The company began a five-year, \$116 million program in 2012 to replace 109 miles of main lines and 27,000 customer service lines.

The following year, the SCC approved Washington Gas' request to increase the scope of its SAVE Plan, adding \$191.4 million over five years to replace an additional 162 miles of main lines and 24,755 customer service lines.

"A pipe over time becomes somewhat leaky," O'Brien said. New state-of-the-art polyethylene plastic is less expensive to maintain, more durable and "lasts up to a hundred years."

This plan to modernize the pipeline system has been so successful, according to O'Brien, that the company is on target to be well below the greenhouse-gas-emissions-mitigation limit set by the United Nations' Paris Agreement to combat climate change.

Since the program's inception, Washington Gas estimates

greenhouse gas emissions have been reduced by 44,011 tons, the equivalent of taking 9,266 cars off the road.

Washington Gas has been making changes above ground, too. "We're looking at our own use of greenhouse gas. We've taken carbon out of our fleet," O'Brien said.

Washington Gas now has 289 natural gas vehicles in its fleet. By adding dedicated Compressed Natural Gas (CNG) and bi-fuel CNG vehicles to the fleet, and by taking active measures to manage fleet emissions, he said the company has significantly reduced the annual per vehicle emissions.

Last fall the company received a Fleet Leadership Award for its natural gas vehicles from the Greater Washington Region Clean Cities Coalition.

The company's Springfield facility is LEED Gold certified.

In addition, the company arms its employees with information to help customers reduce emissions from all sources.

"Employees are on the front line of describing good clean energy processes," O'Brien said. In addition, on the company's annual Day of Weatherization, employees get hands-on and help to improve energy efficiency for homeowners who may have trouble paying their bills.

FROM THE GROUND UP

In Tysons, plans are underway to build a green community from the ground up at The Mather.

The Mather will have 300 apartments designed for people 62 years old and older who want to age in place. The land purchase was finalized late last year, and sitework is expected to begin this summer. The first phase of The Mather is projected to open in 2023.

The Mather already has received pre-certification as a LEED Gold building, said Mary Leary, CEO and president. Gold is the second-highest certification level given by the U.S. Green Building Council to promote standards for green building and renovations.

Leary said a project can receive pre-certification during the development process by submitting a plan for review, which determines if a building is likely to achieve LEED status if it implements the plan. LEED certification is confirmed once a building is complete, after a physical inspection to ensure the plan was fully implemented.



ABOVE: Plans for The Mather at Tysons call for 300 apartments for those 62 and older with energy-efficient lights and lots of smart-home technology.

Its three restaurants will buy fresh food from local sources and use energy-reducing appliances.

RIGHT: Opened in 2012, The Mather in Evanston was the nation's only life plan community to achieve Gold [LEED] standard when it was built.



Plans at The Mather call for smart-home technology to control temperature and energy-efficient lights, as well as a home automation hub that can be integrated with smartphones, tablets and computer systems.

Leary said the location, just blocks from the Tysons Corner Metro stop, fits into the green design. "It's close to transportation. It's a very walkable, urban area."

The senior living community will have a low traffic impact, she added. "We estimate there will be 90 percent fewer trips than if it were a family or office building."

The Tysons site is the most recent "life plan community" project of Mather LifeWays, a nearly 80-year-old not-for-profit organization based in Evanston, Ill. In addition to Virginia, Mather has senior living communities in Illinois and Arizona, a research institute, and cafés and neighborhood programs.

The Mather in Evanston was "the only life plan community in the nation that had achieved Gold [LEED] standard" when it was built in 2012, Leary said.

Mather's Tucson, Ariz., community, called Splendido, uses gray water reclamation, which means wastewater from washing machines, baths, showers and wash basins is used on its lawns.

Mather has planted more than a thousand trees that are native to Tucson, according to Leary. The organization plans to concentrate on native plants for its landscaping in Virginia as well.

The Mather at Tysons will operate three restaurants that will purchase fresh food from local sources and use energy-reducing appliances, she said. The Virginia restaurants will benefit from Mather's experience operating sustainability conscious cafes in other locations.

"We use lots of green business practices," Leary said. "We use insulated coffee cups that don't require sleeves. We've eliminated 40,000 single-use bags. We use to-go containers and utensils that break down or are made of recycled materials. We're even researching ways to make edible utensils in plain, sweet and savory flavors."



TOP: This custom home was designed from the ground up to work with nature. It features: overhangs designed to allow direct sun to warm the house in winter but shade the spaces in summer, solar electric and water heating, geothermal HVAC, advanced smart home controls that turn off energy using devices during periods of low occupancy, and landscaping that manages rain water as nature would, soaking it up and infiltrating it rather than letting it overflow local streams. RIGHT: This traditional entryway opens onto one of the most efficient homes in the DC area, featuring superinsulation, exemplary air tightness, high-performance windows, and geothermal HVAC with fresh air systems all of which go well above code.



BUILDING AND RENOVATING IN GREEN

BOWA Builders, a firm that specializes in upscale additions, renovations and custom homes, is committed to what CEO Larry Weinberg called pushing “the green-building envelope.”

A major force behind BOWA’s commitment is Vice President of Best Practices Doug Horgan, recognized as one of the area’s authorities on green remodeling and construction quality. Horgan has been with the McLean-based company since 1989 and said he’s been interested in green buildings “since I was growing up in the ’70s.”

Perhaps the biggest trend in green building construction and renovation in recent years is one that isn’t visible, according to Horgan. Materials have been designed and constructed to form barriers that control airflow between a conditioned space and an unconditioned space.

“Good air tightness, that’s probably the best thing you can do for the environment,” he said. Plus, “it’s a much more comfortable building.”

Also, in the past few years, according to Horgan, “a lot of people are talking about switching over to all-electric houses. The electric grid is getting greener every year.”

BOWA has been working “for quite a while” with clients who want to use renewable solar energy. “The price has dropped by a factor of a thousand in the last 30 years,” he said. “A lot of people are using solar as an investment vehicle.”

A green house doesn’t have to be a new house, according to Horgan, and much of BOWA’s work is in renovations. “You can do air sealing on an existing house. You can use environmentally preferable products such as low-emitting cabinets that use better glues. You can use certified lumber that has been harvested sustainably.”

Horgan was the first person in the Washington area to achieve the National Association of Home Builders’ Certified Green Professional designation and is an NAHB Certified Graduate Remodeler. He is a Leadership in Energy and Environmental Design (LEED) Accredited Professional with the Homes specialty.