



Forest Preserves Going Green? What? Been Green!!!

By Todd Tucker, Byron Forest Preserve District

Well, I won't be too silly and too confident to say that all entities may it be forest preserves, park districts, cities, schools, etc., can't always do more to become more energy efficient and lower the impact on our environment. In fact, I believe it to be our civic duty to lead local governments in that direction. It should be our obligation to show our patrons what they can be doing and to lead by example. I believe that laws should be in place to ensure that a certain level of energy efficiency is designed into all government buildings. These structures are generally in place for many years and the efficiency over the duration of those facilities would save tax payer dollars and reduce the local impact on our own backyards. It is understandable why it is more difficult for private individuals to invest money in large scale renewables, such as a solar panel, wind power and geo-thermal; it simply comes down to cost and the fact that we tend to move on an average between 5-7 years. However, government buildings are cornerstones of our communities and will reap the cost savings and rewards over the life of those structures.

The Byron Forest Preserve District (BFPD) is one of the smaller districts, yet we try to still have and do large scale green initiatives. Every year, the staff and I try to develop new ideas that will lower costs and increase our "greenness" in many areas of operation. Matt Henkel, our golf superintendent for PrairieView Golf Club, has decreased his fertilizer usage by 10 % over the last 5 years. Water usage on the course has decreased by 25% in the last five years as well. They have done this by using stringent hand-watering practices on the greens and the desire for firmer fairway conditions has led the way. By the end of the 2015 season, we will have converted an additional 15 acres of the golf course into native prairie plantings. The reduction in area mowed that has been returned to native grasses reduces labor costs and the carbon footprint of those mowers. In fact, the course will be adding an 80 cart fleet of electric carts this year. These carts will reduce noise, air pollution, the need for fossil fuels and costs.



Four years ago, we implemented the use of iPads for all key staff and commissioners to lower our paper consumption and we use DropBox for information distribution instead of endless piles of paper copies. Our printing of the budget is now a fraction of what it once was because all drafts are simply in thin air and not printed until the final copies are approved. Last year we also decided to stop printing our newsletter/brochure that was 24 to 36 pages and make it available for online use. We distributed the publication to 11,000 households and now we send out a postcard reminding them to go to the website. We still print approximately 1000 hard copies for businesses and people who do not have the internet or just simply request a mailed copy. The overall postage and paper cost savings is a little more than \$20,000, which we all know could go to many other needed areas of BFPD's operation.

BFPD also is now part of the **Prairie State Conservation Coalition's Prairie State Hike App**. This new 99 cent smart phone app will guide you through trails located in the Byron Forest Preserve District and Nature Conservancy's Nachusa Grasslands. The app has many other locations that you can visit and uses text, audio, photographs and video to describe and explain about the many plants, flowers, trees, wildlife and landscape that you may encounter on your hike.

BFPD also boasts one of the best preschools in Illinois. Our preschool serves 85 children, ages three to five each year and gives them a blend of high tech and outdoor education to ready them for kindergarten. The program is housed in the Keller Education Center, a state of the art teaching and learning center that uses a SmartBoard and iPads to educate within a highly diverse natural surrounding. Not many education centers can brag about the quality high tech learning mixed into a 300 acre nature preserve as an added outdoor learning environment. The Keller Center itself is a Platinum LEED (Leadership in Energy and Environmental Design) certified building, that is recognized by the United States Green Building Council (USGBC) in Washington D.C. The certification, announced in December 2013 by the USGBC, recognizes the Byron Forest Preserve District's strong commitment to the environment and its leadership in sustainability from start to finish in construction.

The Keller Education Center not only houses BFPD's preschool education classes, but is also used for children's summer education programs and is used as a teaching tool regarding green building design.

The Platinum Award is the highest possible rating given by the USGBC and recognizes the building's many energy efficient design features. Some of these include: 3Kw solar panel, 3Kw wind turbine, geothermal ground source heat pump, recycled barn wood cabinets, recycled rubber flooring, recycled glass and concrete countertops, improved indoor air quality through the use of low volatile organic compound paints, low flow toilets and faucets in addition to many other features.

The Keller Education Center is one of only three Platinum LEED certified educational buildings in the State of Illinois. The building is also the first and only Platinum LEED certified building in Ogle County.

The Jarrett Prairie Center which is the location of our administration headquarters and natural history museum was fitted with our first solar panel over ten years ago. The 5Kw photovoltaic system reduced the energy consumption by over \$3,000 annually. Therefore, we have saved \$30k in the last ten years and the system total cost was \$24k with half of that being rebated from a government program grant. We would like to start to fit three of our larger maintenance facilities with 5Kw or 10Kw solar panels over the next couple of years further reducing our budgets and decreasing our energy footprint. The district in cooperation with the Ogle County Solid Waste Department houses the highest used community recycling center in the county.

Our education department offers ecology and recycling education programs for our preschool students, home school classes, scout groups, and all of our many public school visitors. One of the BFPD's prize programs is the EarthKeepers outdoor educational program. EarthKeepers is a three day program for fourth and fifth graders that teach the cycling of materials, movement of energy through ecosystems, connections between living and non-living things and change over time. At each point, it's emphasized that the students are a part of these things and not just learning about a distant concept. EarthKeepers also includes an aspect called "waste watchers," in which we weigh garbage at the end of lunch each day and discuss ways of reducing waste, how compost works and the benefits of reusable containers. When we put the concepts together, students begin to understand how introducing contaminants affect habitats, how much energy goes into food chains, including ours, and that what they do personally can have a positive or negative impact. When they return to school, students have a month to finish the program and complete activities—they choose one way to use less energy and one way to use fewer materials, and have their parents help monitor this at home. The EarthKeepers program has been offered in our district for over twenty years.

The district's ability to continue to be more energy efficient and to educate the public on all types of ways to reduce, re-use, and recycle ultimately stems from our staff and support and vision from the board. I can say that the staff here at the Byron Forest Preserve District is truly our best resource. Every department contributes to the overall mission of the district, may it be on the golf course or the dedicated prairie restoration crew that tirelessly works to restore our beautiful natural areas to their pre-settlement condition, the staff is always encouraged to be a pro-active component and liaison for the environment no matter how big or small.

Photos by Gary Gullett, Adventure Safari Network