



## News To ReUSE

Volume 2015, No. 1, March 2015

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WHAT'S UP  
RECYC-L

Trending Topics:

Recycling plastic  
packaging

Portland State  
University Reuse video

Slim Jim recycling bins

Removing trash cans  
from classrooms

### Chair's Message

Greetings CURC Members and Friends!

It's hard to believe that the school year will conclude in a few short months. The RecycleMania competition is wrapping up and campus departments will be in full swing of planning for a busy event season, Earth Day and Spring Move-Outs.

The Board has been busy since the October Board retreat. CURC renewed its partnership with Keep America Beautiful to support CURC programs and collegiate recycling programs. CURC will again offer a Spring workshop this time in Charleston, SC and welcomes AASHE as a promotional partner for the 2015 CURC Webinar Series. The Fall CURC workshop is being planned in partnership with the University of Minnesota in compliment to the AASHE Conference in October in Minneapolis.

Looking ahead, CURC continues to seek new opportunities to broaden its outreach and member resources. It is also nearing the end of a long construction season on a new CURC website. It looks forward to announcing a new leadership line-up soon as well as welcoming new folks to the Board when the next newsletter reaches your inboxes.

Onward and upward!

Robyn Hathcock, CURC Chair  
University of Oregon Zero Waste Program

### Our Sponsors

Reusing office supplies

To learn more about the Recyc-L listserv or the Archives, [click here](#)

### Webinar Archive

Take advantage of 3 years of webinar archives on the [CURC Website](#)

### CURC Board Positions

CURC will be seeking new Board members in spring. Stay tuned for details.

### Submit Your Events!

Got any campus events you'd like to announce in the CURC quarterly newsletter? Contact [admin@curc3r.org](mailto:admin@curc3r.org).



Waste Management is proud to sponsor CURC in its recycling initiatives.



### CURC Regional Workshop



Hosted by:  
Medical University of South Carolina & College of Charleston

Cost: \$75 General Attendees / \$30 Students

Join regional colleges and universities for this workshop focused on setting goals and strategic planning to advance campus recycling and zero waste programs.

The workshop will kick off Thursday afternoon with a tour of the Medical University of South Carolina (MUSC)'s recycling program in laboratory and clinical settings. Following the tour, the group will meet for a casual networking dinner at a downtown Charleston restaurant.

Friday we'll convene at the College of Charleston for a workshop designed to appeal to schools of all sizes and stages of program development. The workshop will feature a combination of presentations and moderated group discussions about strategic planning and leveraging collaborative relationships on and off-campus to advance recycling and zero waste program goals. The workshop will be followed

by a tour of the College of Charleston's zero waste and sustainability efforts.

To learn more about the workshop, visit <http://curc3r.org>.

## CURC 2015 Webinars



Next CURC Webinar: Is Your Education Changing Behavior?

*Planning outreach campaigns that have an impact*

Thursday, April 9, 2015

1-2:30pm ET

We rely on education to foster sustainable behavior. How do we know it's making a difference? In this webinar we discuss the underlying factors that influence environmental behavior and how to plan effective outreach efforts with measurable results.

Click [here](#) to register.

Program sponsor:



2015 CURC Webinar Series sponsor:



Interested in presenting during the 2015 Webinar series? Go [here](#) to let us know.

## Other Events

4th Annual National Zero Waste Business Conference  
Hosted by: The U.S. Zero Waste Business Council  
May 5-7, 2015 - Millenium Biltmore, Los Angeles, CA



This conference will demonstrate how Zero Waste can be a key part of business climate change and sustainability plans by reducing greenhouse gases and increasing operating efficiencies. Experts from a diverse range of industries will share innovative ideas, practical tools, and first-hand experience at creating value for their business through Zero Waste.

For more information, visit

<http://www.uszwbc.org/2015conference/aboutnzwbc>

5th Annual Collegiate Sports Sustainability Summit (CS3)  
June 24-26, 2015 - Purdue University, West Lafayette, IN



The Collegiate Sports Sustainability Summit (CS3) is back! CS3 is a unique opportunity to connect with fellow collegiate sports professionals focusing on fostering sustainability on campus. The event will feature engaging speakers, collaborative roundtables, and topic specific breakout sessions. This year's CS3 will be hosted by Purdue University in West Lafayette, Indiana on June 24-26.

This Summit offers attendees the chance to network, learn, and exchange ideas with peers from around the country on ways in which athletic and sports programs can join the campus movement to engage students, fans, and alumni in making collegiate sports socially, economically, and environmentally responsible.

For more information, visit

<http://collegiatesportssustainability.org>.

### Feature Article: Small Schools Making Big Progress

*By Brooke Mason, Sustainability Specialist, University of Toledo*

All schools with recycling programs, small or large, private or public, are familiar with the struggles and triumphs that come with the territory of creating, maintaining, and growing a recycling program. Often, we hear of the triumphs of larger schools, as often, they have more fiscal and labor resources to grow and

market their programs. Let us look at the challenges and successes of smaller programs, all at different stages; some just beginning, other moving onto harder projects like composting. Each school has a "win" CURC can celebrate, and a "struggle" that CURC can hopefully help them overcome.

Knox College, a liberal arts college located in Galesburg, Illinois serving about 1,400 students, contracted a single-stream recycling collection company after students advocated for recycling in 2004. In 2014, they began baling and diverting larger amounts of cardboard, and separating out white paper for the commodities market. In their buildings and on their grounds, they pair a recycling bin with every trash can. All collection and transportation of single stream recycling within the campus is done by student labor, consolidated into a roll-off dumpster, hauled away once full, and then processed by outside companies.



A student recycles at Knox College. Image courtesy of Knox College.

The newest success story at Knox College is a composting program which began in 2008. After some system revisions, Knox now composts 95% of all organic waste generated on campus. The current system involves a macerator and dehydrator for handling post-consumer food. They passively compost all pre- and post-consumer in an outdoor bay. According to the Director of Campus Sustainability Initiatives, Froggi VanRiper, Knox's compost program is very low-cost, something other schools may be able to replicate. Froggi said Knox has "an impressive diversity of non-traditional recycling options on campus" including "textiles, books, batteries, ink cartridges, eyeglasses, electronics, and CFLs which are integrated into special events, office moves, and end-of-year move out." One thing Knox struggles with however, is "the optimum level of internal coordination and education...faculty are only marginally involved," according to Froggi.

Nicholls State University celebrated America Recycles Day this past November with a newly revived on-campus recycling program. Nicholls is a public University serving 6,300 students in south central Louisiana located in Thibodaux, Louisiana. According to Dr. Andrew Simoncelli, Associate Professor of Mass Communication, Nicholls State has had a recycling program since



1995 but it was not active when he arrived in 1999. They began to recycle paper products in 2008, but that ended in 2014. In August 2014, under his leadership, Nicholls State received an \$8,000 grant from Keep Louisiana Beautiful to start single-stream recycling on campus. The grant covered the cost of recycling bins, several recycling dumpsters, and the servicing of those recycling dumpsters through May 2015.



Nicholls State G.R.E.E.N. Club putting recycling labels on the new dumpsters. Image courtesy of Nicholls State.

The program is run by student and faculty volunteers. Dr. Simoncelli stated that Nicholls' biggest struggling is finding "volunteers to maintain the bins and administrative support to continue the dumpster pickup when the grant ends. So far all of the efforts on recycling have been done by less than 1% of the campus community." Dr. Simoncelli and the Nicholls G.R.E.E.N. Club have championed for recycling on Nicholls' campus. He says it has been difficult drumming up support because "recycling is not an important aspect to people's lives" in their community. Dr. Simoncelli and other faculty are starting to work on educating the community on the importance of recycling to try and increase support and engagement.

## INDUSTRY ARTICLE: SYNTHETIC TURF RECYCLING

What Goes Down, Must Come Up!

*By Christian Cox , Mid-America Sports Construction  
[Editing contributions by Matthew O'Carroll, Refuse, Recycling and  
Water Efficiency Manager, UC Santa Barbara]*

Sir Isaac Newton's physics-related idiom "what goes up must come down," can easily be flipped to address a growing concern in the United States when it comes to turf maintenance. While synthetic turf has been viewed as an environmentally friendly alternative to natural grass athletic playing fields, their end-of-life management has been troublesome, as much of the materials have traditionally been sent to the landfill. With synthetic turf being laid down at college campuses, athletic facilities, and many school districts around the country, millions of tons of material are set to be sent to the landfill in the foreseeable future.

The installation of synthetic turf started to gain traction at the turn of the century and has since grown exponentially. Unlike natural turf fields, which can only withstand 15-20 hours/ week of activity before field conditions can become unsafe and aesthetically unappealing, synthetic turf fields can host activities 24/7 without showing significant signs of wear and tear.

For the past 15 years they have been viewed as "environmentally friendly" due to the minimal amount of resources needed to operate and maintain the surface. Synthetic turf needs zero to minimal water and the systems are often designed to retain storm water runoff and encourage infiltration and recharge on-site. From an environmental health perspective, unlike their natural counterparts, synthetic turf does not need to be maintained with fertilizers, pesticides, or lawnmowers that may produce carbon emissions. One of the biggest waste-related benefits to installing a synthetic turf field is that it can keep the equivalent of 25,000 tires out of the landfill through the reuse of the tires as infill. The infill for the majority of synthetic turf is composed of granulated rubber from spent tires which is utilized to mimic the feel and play of natural grass, maintain the integrity of the artificial blades, and decrease surface hardness.

With these environmental and health benefits of synthetic fields, there is a major drawback in regards to end-of-life management. On average, synthetic turf fields have a lifespan of ten years. What happens to a field that has come to the end of its life, you may ask? Until recently, the solution has been to dispose of the field and all of its rubber infill into the landfill.

So, let's do the math on this one. Say we have a playing surface that measures 101,000 ft<sup>2</sup>, which is the size of an average playing field (Figure 1). Accounting for the rubber infill, backing of the turf, the fibers, and sand, that one square foot weighs approximately 10 lbs. In all, this could equate to over 1 MILLION lbs. of material to be disposed of in a landfill when the synthetic playing surface reached the end of its life. A million pounds is a daunting number, but with hundreds of fields being replaced every year, that number could quickly add up to over 1 BILLION lbs!



Figure 1: Average playing field

So what does 1 BILLION lbs. look like?! Well it is equivalent to...

- 2,500 blue whales, the largest existing animal and the heaviest to ever have existed
- More than 2 Empire State Buildings (it weighs 365,000 tons!)
- The weight of 10 R.M.S. Titanic passenger liners

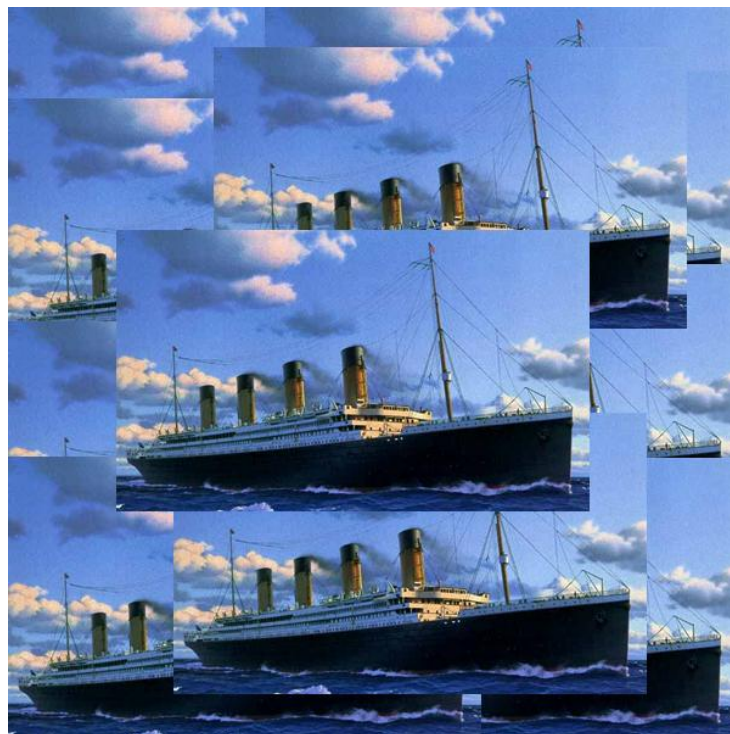


Figure 2: The R.M.S. Titanic weighed 46,328 tons!

New, state-of-the-art processes have been developed by companies specializing in the removal of synthetic turf fields, which allows them to extract the infill from the turf, clean and classify the infill, and then reuse the infill at the same job or on another site. With the infill being extracted from the turf, it allows for the turf to be repurposed or recycled. This presents the best of both worlds for a field owner, as reusing infill from existing fields lowers the cost of installing a new field with virgin material and



the owner will receive a solution that will keep 100% of the old field out of the landfill.

## ***Synthetic Turf Fields That Will Turn Ten Years Old***

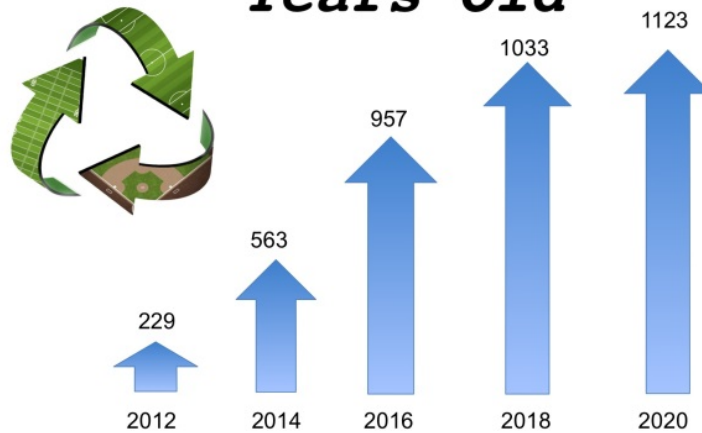


Figure 3: Forecasted replacement fields based on their average lifespan. These numbers are in straight correlation to fields that were installed 8-12 years ago.

According to Kirk Grego with Mid-America Sports Construction's R3Field Solutions, "Every replacement job is different and the logistics on each project are a major factor, but anytime you can take landfill tipping fees out of the equation, it's going to help the bottom line, drastically." Another positive factor is the advancement of science in plastic recycling. After the old turf goes through the grinding process and is melted back down into pellets, it actually has multiple types of plastics in the final product. Until recently this has been a dead-end for plastic recyclers. There were very few, if any practical applications for this type mixed plastics product. "I think it's safe to say, maybe even as little as five years ago, it would not have been possible to find a home for this particular material." Mr. Grego added.

So while "what goes down must come up," reusing materials from synthetic turf fields that are at the end of their life will reduce the cost of a new field, while adding to the environmental performance of a synthetic turf field. With these advancing technologies, athletics facilities now have a greater ability to close the loop, recycle and save money.