

NON-PROFIT  
US POSTAGE  
PAID  
PERMIT 526  
NEW HAVEN

195 Prospect Street  
New Haven, CT  
06511-2189  
T: 203 432.6570  
F: 203 432.3817  
www.yale.edu/uri

NEW HAVEN/URBAN  
RESOURCES  
INITIATIVE

URI

URI

FALL 2018  
VOL. 29, No. 2

# URBAN ISSUES

Newsletter of the Urban Resources  
Initiative at the Yale School of Forestry  
& Environmental Studies



## NEW SOLUTIONS

by Jeniffer Banuelos

In the spring of 2014, along with a diverse group of partner organizations, URI began the first of its projects focusing on addressing water-quality problems in New Haven through the building of gardens, known as bioswales which are engineered, planted areas designed to capture and absorb stormwater from impervious surfaces. These partners included the City of New Haven, the Greater New Haven Water Pollution Control Authority (GNHWPCA), EMERGE Connecticut, Inc., the Yale School of Forestry & Environmental Studies, Common Ground High School,

and URI. The pilot project, on West Park Avenue and another set of bioswale installations on Daisy Street and Watson Avenue in the Newhallville neighborhood of New Haven, completed in 2016, played a pivotal role in the preparation of a large-scale venture now underway in the downtown area. The new initiative stems from a federal grant awarded to the City to install upwards of 200 bioswales there to reduce the chronic flooding around the Union Train Station and the New Haven Police Station and to improve the quality of Long Island Sound's water.

(continued on page 4)

### In this issue:

#### Full Circle

3

#### Remembering Bill Bidwell

6



**NEW HAVEN / URBAN  
RESOURCES  
INITIATIVE, Inc.**

**Yale School of Forestry  
& Environmental  
Studies**

Indy Burke, Dean

**Hixon Center for  
Urban Ecology**

Gaboury Benoit,  
Director

**URI Faculty Advisors**

Mark Ashton

William R. Burch Jr.

**URI Staff**

Colleen Murphy-Dunning

Christopher Ozyck

Katherine Beechem

Anna Ruth Pickett

William Tisdale

Matthew Viens

**New Haven/URI  
Board Members**

Anna Bartow

Josephine Bush

Zeb Esselstyn

Gordon Geballe

Christine Kim

Laurence Nadel,

President

Sara Ohly

Erik Pearson

Ed Rodriguez

Joseph Ryzewski

Errol Saunders

Semi Semi-Dikoko

Melinda Tuhus

Harry Wexler

Don Williams

**Newsletter Editor**

Suzanne Kelley

**Fall 2018**

**Vol. 29, No. 2**

[www.yale.edu/uri](http://www.yale.edu/uri)

## FROM THE DIRECTOR



It is a great privilege for me to write about the late Bill Bidwell's unwearied stewardship of Beaver Pond Park in this issue of the URI newsletter. As I reflected on his steadfast volunteering in the park, I wondered how his caring for it may have positively impacted him. Many Greenspace volunteers, like Bill, devote numerous hours to planting and maintaining public lands during their retirement. Perhaps connecting with neighbors who also contribute their time and energy in a shared

desire to enhance our city's landscape fills their retirement years with the same sense of purpose I find in my work at URI.

I am fortunate and grateful to be part of a remarkably motivated team, who are all driven to push hard toward both improving the physical environment as well as creating a more equitable New Haven. Will Tisdale has joined our ranks, and as he works alongside Katie Beechem to lead our tree-planting efforts, it is clear Will's strong work ethic exerts a powerful influence on the adult crews he trains. In his article, URI intern Liam Riley describes how Will's opportunity to make a tangible difference has profoundly changed his life.

Whether through a newly planted tree or a newly created bioswale, working with volunteers and our partners at the City of New Haven, EMERGE, Common Ground and Sound Schools, we are strengthening our city. As Jeniffer Banuelos writes in the cover article, the importance of finding solutions to flooding and impaired water quality clamors for new strategies and action. It is heartwarming that Matt Viens and Chris Ozyck, who head our bioswale project, and the rest of our team and partners all recently visited Harvard to accept its esteemed Roy Family Award recognizing the successful outcomes achieved by our unique partnership thus far. While the environmental challenges ahead are formidable, I remain optimistic because our staff and volunteers have demonstrated they're committed, and they're up to the task.

*Colleen*

Colleen Murphy-Dunning

## Full Circle

by Liam Riley

As we set out to deliver trees in The Hill, Will Tisdale was excited to show me around his childhood neighborhood. Sure enough, nearly all the people we saw on the street greeted Will and discussed shared memories with him. They inquired about his new job planting trees, and more than a few of them requested trees to be planted in front of their own homes. Will finds the work in The Hill to be particularly rewarding, as it helps him reflect on his own history with the neighborhood. He tells me that he, regrettably, "used to live in his own world, destroying these neighborhoods with drugs and disregard."

The work he does with URI has given him the opportunity to "build these neighborhoods up with trees and beauty," revealing the new growth mindset he has adopted which champions hard work as the way to see a difference in his life and community. After spending 10 years in federal incarceration, Will made serious life adjustments so that he could ensure he's around for his young grandchildren, as well as his wife and three kids. For Will, "It's all about second chances," and he hopes to help others take advantage of theirs in the same way he has marshaled his own.

Will first started with URI in 2015 as one of six participants of EMERGE on the adult tree-planting crew. Helped by the life skills he was gaining from their program, Will concentrated on the tree-work skills URI was teaching him, and he proved a natural. URI formally hired him in March 2018, and now he's inspecting tree sites, maintaining tools, and training our newest planting crew.

When asked, however, about what his greatest asset is, Will talks at length about



**Will (with arms raised) exults with his tree-planting team on a rainy day.**

the connections and familiarity that his time on the streets in New Haven has given him. His work crew and the people we see while delivering trees respect him and understand the considerable efforts Will has made to get where he is currently in life, but they don't view him as really any different at his core from the Will Tisdale they knew before.

He wants to apply the influence he has in order to set other people in his community onto better life paths, to show them the importance of building up a neighborhood. Will now speaks for EMERGE occasionally and maintains strong bonds with the guys to help them find jobs and stay committed to forging positive lives post-incarceration. The message that he seeks to get across to the EMERGE work group and young people everywhere is that it's okay to make mistakes, but, "If you keep making the same mistakes, it means you're not learning from them."

# New Solutions

by Jeniffer Banuelos (continued from page 1)

During heavy storms, the downtown stormwater drains become overloaded, which results in the flooding of crucial infrastructure resources. The stormwater pipes located in the northern part of downtown, including the Yale campus and its adjacent neighborhoods, all flow into Long Island Sound, engulfing the train station and police station along the way. This problem will likely worsen as annual rainfall intensifies due to climate change.

The partnership that completed the previous bioswale projects in New Haven proved to be effective, as it created a means for each partner to contribute their unique expertise. Design and planning were led by the City and the GNHWPCA; URI and EMERGE completed the bioswale installations; and URI and Common Ground interns engaged neighborhood residents in the plant selections and stewardship of the roadside gardens.

Studies conducted by Yale's Gaboury Benoit, professor of environmental chemistry, and a cohort of graduate students showed promising results for the bioswales built along West Park Avenue and in Newhallville. Data collected at the West Park Avenue study sites revealed that the bioswales were capable of removing over 75% of the stormwater runoff from the contributing drainage area. And preliminary results from the Newhallville sites demonstrated that the bioswales noticeably reduced both the peak flow—the highest flow of water attained by a river or stream from runoff or rainfall—and small rain events,



**The team accepts the Roy Family Award for Environmental Partnership at Harvard on November 5, 2018.**

managing 100% of the runoff generated from the contributing drainage area. The research results furnished the City of New Haven with important evidence that helps guide the new downtown project.

Now the City is administering this large project over the next year with the help of URI and private contractors, intending to install as many as 200 in the heart of downtown. Thus far, URI has built over 50 bioswales in partnership with teams from EMERGE Connecticut, Inc., a social enterprise committed to helping formerly incarcerated individuals make a successful return to their communities. URI staff work side by side with the EMERGE participants, training them how to construct these bioswales. Working with URI, our EMERGE teams complete several bioswales each week, and through the

repeated opportunity to learn, the crews have acquired a high proficiency in creating this form of green infrastructure.

The state guidelines for constructing bioswales in the historic downtown area require an archaeologist to be present on-site. In addition, URI and the EMERGE team must hand-dig during the work, which has helped to unveil interesting New Haven history, such as bygone pipes that are not marked on any of the City's maps.

As the work on bioswales progresses, URI, EMERGE Connecticut, Inc., and the City of New Haven will together reduce the flooding in the downtown area. Professor Benoit also continues to work with the team to monitor the merit of these green infrastructure installations. And outreach to nearby businesses and residents to raise

public awareness and understanding of how green infrastructure functions remains part of the protocol first established at the West Park Avenue pilot project.

The team's exceptional impact has recently been recognized by Harvard's Kennedy School, winning Harvard's Roy Family Award for Environmental Partnership. This prestigious award, given every two years, celebrates an outstanding public-private partnership project that enhances environmental quality through novel and creative approaches. The partnership's inclusive, science-based approach—simultaneously tackling both social and environmental problems—offers a valuable model that could be replicated in other cities.

Photo credit: Bennett Craig, Belfer Center



# Remembering Bill Bidwell

by Colleen Murphy-Dunning

Bill Bidwell, co-leader of the Friends of Beaver Pond Park, passed away on August 23rd. Bill's quiet and modest nature meant his extraordinary commitment to the park over the past 14 years was not widely known, but by sharing his extensive contributions we can offer a tribute to his extraordinary efforts.

Since 2004, volunteers of the Friends of Beaver Pond have met every Wednesday evening throughout the summer to work in the park with URI's Greenspace program. Bill strongly believed in their partnership with fellow volunteers, and he and his co-leader Nan Bartow have been outstanding leaders of this group. After each Wednesday night volunteer event, Bill and Nan sent an email to their group noting who was there and lauding the achievements accomplished that week.

I believe that their thoughtful recognition of their fellow volunteers' contributions is in part what made their leadership so effective and their group so cohesive and committed week after week, and year after year. Over these years, the group has planted hundreds of trees, shrubs and perennials. Gardeners know that this requires a lot of watering of plants. And watering plants at Beaver Pond requires conveying water from the pond to the plants. So Bill devised ingenious ways to lug the water—first with a contraption that included a bike wheel to crank a pulley to hoist out a bucketful, and later with a boat pump powered by his van's battery.

Wednesdays were only the tip of the iceberg for the work that Bill tackled at the park. On Wednesday evenings the volunteer group focuses on the area

of the park nearest the Beaver Hill's neighborhood. But Bill cared for the entire park—all 109 acres of it.

Here are just some examples. Bill mentored Hillhouse HS students in their AP biology class and worked with them to dream up science projects based on the park and also guided Common Ground HS summer interns who worked in the park.

Bill was a great writer. He wrote a grant to the Community Foundation and used the funds to develop an interpretive trail—writing notable features of the park and then fabricating and installing signage along the trail.

Bill valued collaborating with colleagues, and five years ago he began working with an expanded group of partners including the US Fish & Wildlife and Audubon. Together they and Bill, along with URI and Yale Forestry and Common Ground students, developed an urban oasis for birds near the Hillhouse athletic fields. Bill partnered with Fish & Wildlife to get a kiosk frame, and then Bill did all the finishing work. He worked with his son Birch to produce a poster listing all of the birds that have been seen in Beaver Pond Park. And Bill built an osprey platform and maintained the tree-swallow birdhouses at the park.

In more recent years, Bill moved to the Newhallville side of the park, and joined with Neighborhood Housing Services to build a new pathway along Sherman Avenue.

Bill was also an unflagging advocate—ensuring the athletic fields did not expand into natural areas; successfully shutting down the police firing range to



Bill Bidwell and Nan Bartow, co-leaders of the Friends of Beaver Pond Park.

stop the sound of daily gunfire in the park; and meeting with City engineers to monitor the water levels in the pond.

The water in the pond arrives through stormwater outfalls, and as the stormwater comes into the pond it brings trash. Bill picked up literally hundreds of bags of trash from the pond. But he did not just pick it up. He studied it—he sorted, categorized and counted the trash. Bill sent his study methodology and results, complete with photographs and data, to a Yale hydrology professor.

For a decade, entering Yale students have come to learn in week-long field exercises how to remove invasive vegetation and to plant natives in the park. However, the professor was so inspired by Bill's litter

study that he decided the students should also learn about water quality through Bill's methodology. Consequently, the students review Bill's photos, and then, following his example, they now collect, sort and count the trash to consider what management solutions could be devised to address the problem.

Yale students, Common Ground and Hillhouse high school students, partners and neighbors all learned from Bill through his truly remarkable gifts to the park and to our community. Bill made a critical impact on the landscape through his stewardship, but he also made an incalculable impression on those he worked with through his unexcelled example of tireless and humble dedication.