



Green Infrastructure: Now, Forever, and Always

ADVOCATING FOR GREEN INFRASTRUCTURE ACROSS THE TURNER FIELD COMMUNITIES

Advocates Learn about GSI

by Jason S. Dozier

Advocates learned that Green Infrastructure advocacy can take on different forms, depending on the needs of the communities or the institutions that look to work with those same communities. **Advocates learned that green infrastructure is a water management technique that seeks to protect, restore, and mimic the natural water cycle.** This can range anywhere from planting trees and restoring wetlands, to building green roofs and rain gardens. Green Stormwater Infrastructure (GSI) seeks to specify the green infrastructure language, because of its specific focus on planned landscapes in mitigating stormwater flooding occurring because of heavy rainfalls. Retention ponds, bioswales, permeable pavers, and rain barrels are common ways to prevent stormwater runoff from entering into the watershed too quickly, ultimately preventing flooding and displacing residents.

This group had multiple subject matter experts come and speak about the needs for Green Stormwater Infrastructure advocacy. **The class learned much through this process, sharing their knowledge and reflections multiple times with the group. Writing and speaking are two of the most important tools that you have to advocate for Green Infrastructure, particularly as both**

methods can be articulated clearly through a comprehensive media strategy. Important keys to remember when writing and speaking are to ensure that advocates effectively address their audiences, identifying ways that they may positively react or respond to what is said, and address concerns or issues within the presentation itself. By appealing to the interests of these audiences, advocates can better work to change their viewpoints.

Students read Paul DeMerritt's "Earth to Atlanta" article that was published in *Creative Loafing*. Mr. DeMerritt spoke with the group and the advocates discussed the reality that climate change is causing more frequent flooding events, even if they're not necessarily the 100-year rain events that watershed managers typically plan for. The southeastern region especially continues to be hit by smaller storms that essentially suffer more catastrophic floods and cause a disproportionate amount of damage. Ultimately, as the oceans gets warmer, the sea surface becomes warmer and causes more water to evaporate. Unfortunately, cities have difficulty dealing with this flooding because of impervious structures like roads, buildings, and highways that exacerbate flooding conditions.

The advocates learned that flooding negatively impacts property, public health, and quality of life because it can quickly overwhelm the combined overflow system that's nearly a century old. Not only does water flood properties that are deep into the watershed, but the overwhelmed sewers cause human waste to rise to the top, negatively affecting public health and significantly impacting quality of life.

VALUATION TOOL - Center for Neighborhood Technology & American Rivers

Practice	Reduces Stormwater Runoff										Improves Community Usability										
	Reduce Water Demand	Improve Water Quality	Improve Green Infrastructure	Improve Stormwater Management	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	Improve Water Quality	
Green Roofs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Tree Planting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Retention Ponds & Infiltration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Permeable Pavement	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Water Harvesting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Legend: ● Yes ● Maybe ○ No

Summerhill's Perspective on the Need for GSI

by Finney Wilkens

Green Infrastructure means power and influence that will provoke progress and improve conditions for those who live in a community. **As an advocate and a stakeholder it is our total responsibility as representatives of the community to develop and command partnerships and cooperation with any concerned stakeholders.** Atlanta being a regenerative, urban area is obligated to environmentally enhance and restore relationships with the natural ecosystem. In our communities, councilmembers have participated in numerous recycling/destruction events involving technology, equipment, guns, and medicine continuously. The city has restructured numerous roads/streets to assist with flooding and drainage issues. In addition, recycling bins for plastics, glass, paper even clothing are present throughout the community. Atlanta, being a city of trees, requires citizens throughout the community to replace dead trees or cut down certain trees. Water bins used to recycle rain water are prevalent throughout the community. When attending events or participating in a workshop, observations include seeing if there are containers for the recycling of forks, plastic utensils, cups, bottles, plates so that they will not end up in our rivers. This is all a part of the green infrastructure efforts in our communities.

My family was the first group of people I communicated with about green infrastructure. They were a sounding board and an opportunity to reach even more people on their jobs, schools, etc. **We all became constantly aware of green infrastructure throughout the community to the point that it became a game in identify the evidence of green infrastructure presence or need of.** One example was the roof top garden and trees at Maynard Jackson High School in Grant Park. My grandson noticed it and identified with the green infrastructure concept. Another was my youngest grandson interest in participating in the garden club at his elementary school at Parkside where environment is a part of the lesson. When they would see drains blocked by bottles or

homes with flooded lawns, they began to notice the environmental disparities in other communities that did not have the same issues. As past president of the HOA at Greenlea Commons Community Association it was a continuous effort by the board to make the community aware of events involving discussions of environmental justice and encourage their participation.

As advocates, we must initiate well thought out politically, financially and technological strategies cooperating with city government and other entities that are stakeholders. Our ecosystems are our lifeblood. Innovative ideas to maintain green infrastructure are necessary for the betterment of all levels of the socio-economic system. Basically, how we live can be determined by the environments we live in. We are only entitled to what we are willing to work for to improve and protect our environment, no matter how insignificant it might seem. This is how we progress. Our children deserve a clean environment so that they too, can develop into advocates that promote progress for the future generations. The community needs to demand change only after properly being educated so that environmental injustice is not a way of life. Lastly educate, educate, educate, and being informed builds steady, productive progress.

Pittsburgh Working to Address GSI Challenges

by Dr. Lawrence Ervin

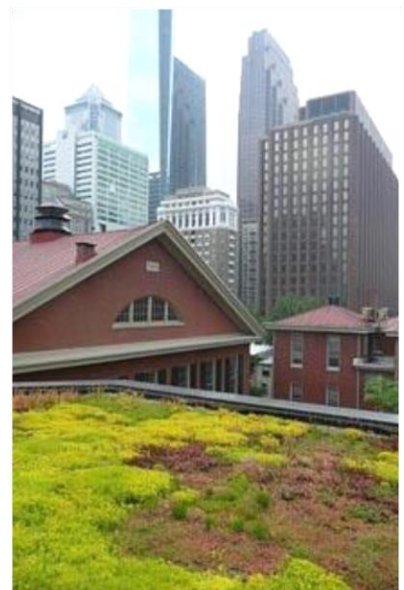
Green infrastructure to me is a viable, sustainable, man-made method of mimicking nature's natural water barriers and green spaces. When done correctly, benefits of soil conservation, energy efficiency, and water preservation/drainage can be achieved in densely populated areas. **In my community, not many of these principles have been applied leaving the residence vulnerable to flooding, lack of communal green spaces, and poor air quality.** Hopefully, with the pending Beltline construction crossing University Ave and Metropolitan Pkwy, there will be an influx of

Types of GSI



Green Parking

Parking lots are a good place to install green infrastructure that can capture stormwater that would usually flow into the sewer system.



Green Rooftops

A green roof system atop a building helps manage stormwater and reduce energy costs for cooling.

permeable sidewalks, parks, and engineered water barriers to aid the community.

I've had the opportunity to speak with friends considering relocating to the city about green infrastructure initiatives. Namely, the ability to turn an urban area into a walkable, functional environment that enhances the lives of residence, increases property value, and supports nature. Feedback has been skeptical, but with plans for both the Turner Field project as well as Beltline promises being readily available, I've been able to show concrete examples of investment/action.

Permeable Pavers in Mechanicsville

by Jason S. Dozier

Two years ago, the City of Atlanta announced that it would be installing a series of permeable pavers throughout different parts of the southeast and southwest quadrants of the City. The pavers, which are comprised of layers of rocks, gravel, and brickwork, absorb millions of gallons of stormwater runoff in an attempt to curb flooding in the Peoplestown community.

The City of Atlanta has struggled to balance the city's infrastructure needs with those of citizens that are most affected by these changes. For instance, in Peoplestown, the city compelled many residents to leave so that they could install a retention pond which had the intended effect of helping more of the neighbors' residents. This created frustration, outcry, and distrust between the citizens of the community and governmental entities charged with reducing the flooding.

This frustration extended to the Mechanicsville community, even though the community isn't directly affected by the flooding. The City of Atlanta started installing permeable pavers without notifying residents of the impending projects, and furthered failed to coordinate these projects with schools, public works, or the public transportation mechanisms important to people's daily lives. Both proactive communication and effective articulation is key to generate buy-in from the community.

These projects should be a collaborative process, which provide residents with the opportunity to articulate the impacts caused by the installation, which would ultimately inform how the city goes about implementing these projects in the first. This hasn't necessarily been the case thus far, at least not in Mechanicsville.

This whole process shows that even the best intentions can have disastrous effects for our communities. Many streets had been destroyed for over a month—while some residents understood why this work was necessary, the fly-by-night nature of the project concerned many others, particularly

those who were older or had children that typically play where is now a construction zone. The City certainly has gotten better at communicating these issues in the aftermath of the initial construction, but even that took an outpouring of anger and frustration aimed at our elected officials to get any sort of action.

"Communication is key, and public officials need to realize the importance of that."

Addressing Displacement through Infrastructure in Peoplestown

by Columbus Ward

As we become more involved around our changing climate and the many problems we are encountering in our neighborhood (like flooding, poor air quality poor water quality, brown fields, landfills and so many more), environmental health concerns become more pronounced in our communities. **Green infrastructure advocacy training provided a good opportunity for us to become more knowledgeable and educated about our community as a whole, and to participate in future development and redevelopment.**

We need to support Green Infrastructure for the future of our neighborhoods and that starts by supporting the recommendations from the Livable Centers Initiative study around the storm water infrastructure feasibility assessment for core area of Turner Field Stadium Neighborhoods. This is an important first step in the right direction, but this must occur without the displacement of residents.

I have started sharing my concerns at all the community meetings that I attend on why it is important to demand Green Infrastructure for all development and future development of our communities, also to start reaching to

Permeable Pavers

Permeable pavements infiltrate, treat, and/or store rainwater where it falls. They can be made of pervious concrete, porous asphalt, or permeable interlocking pavers.



others to make this a priority to become advocates for Green Infrastructure in their neighborhood. Especially when we are dealing with environmental injustices for many years which has hurt our neighborhood.

The message that I would like to bring to everyone around Green Infrastructure is that: 1) we must now insist that our voice and concerns are heard; and 2) that all future development south of I-20 must adopt Green Infrastructure techniques in their development plans our communities. Doing so will help us manage existing problems and begin preparing for the future.

We know that in our neighborhood around Turner Field, the City of Atlanta Watershed Management is installing permeable pavers to help manage the storm water problem that floods parts of our neighborhood. This is good but not enough. Remember that Green Infrastructure is a powerful tool to help manage both our existing environmental health concerns, as well those problems that may arise in the future.

American Rivers Perspective on GSI

by Jeremy Diner (republished from americanrivers.org)

To me, GSI means bringing nature and modern engineering together in order to benefit all of the people in a community, foster economic growth, and protect the environment. I think that listening (a type of engagement), aligning strategies (using your audience's language) and maintaining a focus on diversity, equity and inclusion (sharing benefits equally for all, and not just for loudest/most powerful) are all key components of a good GSI strategy.

If you live in Atlanta, you've probably heard that the Braves are leaving Turner Field. Whatever your feelings may be about the Braves, for the local residents in this low-income community of color, this move presents a rare opportunity. An opportunity to reduce the persistent flooding; an opportunity to get a grocery store; an opportunity to get a grocery store; an opportunity for translating a shared vision into action; and an opportunity to create a neighborhood that equitably serves the residents for the first time since the 1940's. Check out the article from the coalition of residents known as the Turner Field Community Benefits Coalition (TFCBC) to learn more about the history of the area.

Despite this challenging history, there has been cautious optimism around the recent Turner Field Stadium Neighborhoods Livable Centers Initiative (LCI), a community visioning process for the future of the area. The LCI has involved hundreds of residents and focused on transportation, urban amenities, density, stormwater, the environment, and other issues of importance. Parallel to the LCI, the TFCBC published a survey of almost 1,000 residents. Top answers to a primary question, "The New Development Should..." included: "Manage Stormwater" (#1), "Be Environmentally Friendly" (#4), "Create More Job Opportunities" (#5), and "Include Public Parks/Green Space" (#6).

After reviewing these results with residents, we at American Rivers considered how the benefits of green stormwater infrastructure (GSI) could address several of the community's top priorities. So we offered to assist both the TFCBC and the LCI in crafting robust, yet realistic recommendations for the implementation of GSI for the

redevelopment, as well as for the adjacent interstate highways—a major source of runoff. After attending multiple community meetings and listening to what people were asking for, we developed recommendations to capture the first 1.8" of rain from each storm wherever possible, totaling about 3.6 million gallons per storm. Then we backed these recommendations up with two feasibility assessments, which rely primarily on rainwater harvesting, permeable pavement, and bioretention. The draft LCI Plan, including American Rivers' recommendations, is now available for review and comment here.

The most recent step in turning these recommendations into reality has been working with ECO-Action to train local residents to become advocates for GSI. By investing in local capacity, we hope that there will be voices for sustainable water management in the community for decades to come.

through current environmental protection laws.

Types of GSI



Bioswales

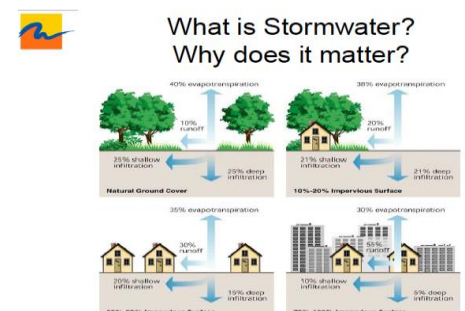
Bioswales are vegetated, mulched, or xeriscaped channels that provide treatment and retention as they move stormwater from one place to another. Vegetated swales slow, infiltrate, and filter stormwater flows.

Special Guest Commentary on GSI Advocacy through the CBA

by Patricia "Ma'Ma Ajike" Williams

This Eco-Action, Inc. Green Infrastructure Advocacy training is also about getting people to move within the authority of their power and lessen activities which only serve to diminish their power while empowering others.

While the Turner Field Community Benefits Coalition created its Community Benefit Agreement (CBA) to include an environmental component (e.g. Green Infrastructure), the plan does not cite any existing environmental laws as its underlying basis for the recommendations. Effective and equitable enforcement of environmental laws protect all people regardless of the differences in their economic, education, or social status. Therefore, I am of the opinion that the CBA recommendations would carry greater weight at the negotiation table if it explicitly states its inherent legal authority



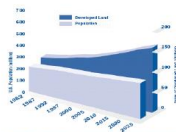
Green Infrastructure for the Affected Communities Surrounding Turner Field

by Ahmed Najee-ullah

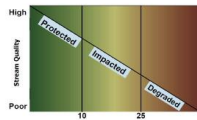


Runoff: a growing problem

Development rates outpace population growth



Development = Imperviousness = Impaired Waters



As I reflect on the classes that I have attended, conducted by Dr. Yomi Noibi, I have to admit that I was not really sure what I was getting myself into. I will say that I am committed to doing what I can to get Georgia State University to include the Community Benefits Agreement (CBA) in the contract with the developer.

The classes started on April 27, 2016. Since then, I have learned that historically the communities surrounding Turner Field have been impacted negatively since the 1950's when the federal government decided to build the interstate system through the state of Georgia. But even before that I found out that when the city annexed that part of Fulton County, it was mostly rural. And since it was mostly rural the infrastructure was not upgraded to accommodate the growth of that part of the city for urban development.

Now let's bring that forward to where we are today. In 2016, the interstate system that was developed, divides the Turner Field community and is exposing said community to the exhaust of the vehicles that run on I-85- I-75 and I-20 every day and every night, 24 hours a day. The communities have been ignored to the extent that when The Atlanta-Fulton County Stadium was built in the 1960's, the environmental impact on the communities surrounding that development was not even considered. Since then, the same land was redeveloped to accommodate the 1996 Olympic Games. No consideration as to environmental impact on the community was considered. After the Olympic Games, the land was repurposed for the Atlanta Braves. No consideration as to environmental impact on the community was considered. Now, Georgia State University is buying the land. And would you

know it, the environmental impact is still not being considered.

With that being said, has anyone studied the area to determine what the suffering has been to address the concerns of the community surrounding Turner Field? NO!

As a part of this class, I have learned that asthma among the school age children is very high. When it rains in the area, there is serious flooding. I have experienced the flooding issues myself in trying to navigate Hank Aaron Dr. when it rains. There are other streets in neighborhood where this flooding also occurs.

We need to ask ourselves if the City of Atlanta really cares about its citizens or just the citizens that have a lot of money. I raise that as a concern because when you look at the development of the city, the development has been north of I-20. When you look not just at the communities surrounding the Turner Field property, but all of South Atlanta, you don't see the urban growth that you see in North Atlanta. You see communities that are food deserts. You see communities that appear to have been forgotten by the progress that should be inclusive.

So when you look at the communities that will be impacted by the decisions that Georgia State University will make regarding the Turner Field project, will there be progress or more of the same pattern of environmental injustice that has already happened in those communities?

As we have been studying green infrastructure and stormwater drainage, we have learned that the city added a green roof to city hall. Why did the city put a green roof on top of city hall? Among other things, they are saving energy as well as extending the life of the roof. I read in an article in the AJC earlier this year of "Klyde Warren Park", in Dallas TX., a 5.2-acre greenspace built over the interstate that passes through the downtown area of Dallas. This can be and was suggested as a way to filter some of toxic emissions that are emitted by the thousands of vehicles that pass through downtown Atlanta on I-75-85.

"In Dallas, the park didn't get started until \$112 million was raised. Some came from city bonds, some from the state, some from the feds. Private money accounted for roughly half. The park, run by a foundation, is drawing about 1 million users a year and features a restaurant, fountain and playground among other amenities."

In addressing the stormwater problem, the city has started to improve the drainage problem in the affected areas. There are designated streets in Peoplestown that have been repaved using the permeable paving

process. **Permeable paving is a range of sustainable materials and techniques for permeable pavements with a base and subbase that allow the movement of stormwater through the surface.** In addition to reducing runoff, this effectively traps suspended solids and filters pollutants from the water. This is a process that is slowly beginning to be used around the world. At the present, Atlanta is a city that has the largest area use for this process.

These are just a few things that we learned in the class. We realize and encourage Georgia State University to study using green infrastructure in their design and implementation. We learned that there are cost saving in doing so. Green infrastructure practices are often more effective and less expensive than traditional stormwater controls.

The benefits of green infrastructure include: 1) Improving clean water; 2) Enhance public health; 3) Creates jobs across diverse sectors; 4) Savings cost from reduced energy use; 5) Prepares communities for the impact of a changing climate; and 6) Improves quality of life.

As I have learned about this information and the work that that the Turner Field Coalition has been doing, I have tried to bring it up in conversation with everyone I meet. As a matter of fact, one of my doctors and I have been having this ongoing conversation for about a year. Every time I am in his office he inquires about the development of things in that area.

Also, Brother Anees Fardan and myself are part of the leadership of Masjid Al-Mu'minun.

We have been having meeting with the Muslim community and sharing with them the development of the Turner Field Coalition. When petitions needed to be signed, we got the Muslim community to do their share of signing the petitions. When we needed numbers to show up for a rally or needing numbers to show up at City Hall, we did our part to get the Muslim community support.

Our Green Infrastructure (GI) Advocacy training has robust content and process. Its content includes the dimensions of Green Infrastructure such as definition, elements of GI, values and benefits of GI to address stormwater issues, and improve livability, as well as the relevance of ecosystem management and Climate Change.

In addition to Dr. Yomi's expertise,



Information session on GI and Flooding

Commentary on Green Infrastructure Advocacy Training

This newsletter was produced by participants of the Green infrastructure (GI) Advocacy training under the leadership of Mr. Jason Dozier, one of the trained GI advocates who is a communication guru and resident of Mechanicsville, one of the Turner Field Stadium communities.

Green Infrastructure Advocacy Training for Residents of Turner Field Stadium Communities evolved out of a need to advance recommendations for Green Infrastructure (GI) as a sustainable vehicle to address flooding and stormwater issues in the redevelopment of Atlanta's Turner Field stadium and its immediate communities.

Therefore, this training was designed to build community capacity on Green Infrastructure by training seven residents to serve as advocates/champions for the Green Infrastructure recommendations in the City of Atlanta Livable Center Initiative (LCI) plan and the Turner Field Community Benefits Coalition (TFCBC) community Benefits Agreement (CBA). ECO-Action, American Rivers and members of the TFCBC worked diligently to ensure that our GI recommendations were incorporated in the LCI.

Now that our GI recommendations are in the LCI and in the CBA, trained advocates and community organizers need to transfer their learning and work to ensure that GI recommendations are implemented in the redevelopment of Turner Field stadium and surrounding communities in order to address flooding/stormwater issues and also help to improve residents' quality of life.

guest speakers; and our trained advocates had a meaningful learning exchange with these guest speakers. The process used a variety of teaching methods that enabled trainees learn about GI but not limited to learning, they also empowered themselves to want to take action for the use of GI in the community.

Therefore, our GI advocates will bolster their voices and overcome obstacles as they advocate for putting Green Infrastructure to use in the redevelopment of Turner Field Stadium communities. Our trained advocates will also serve as change agents in the NPU-V communities and beyond.

Special thanks to all the GI advocates for their steadfastness in attending classes, meeting with me in-between classes, and responding to the pre/post test, reflections activities on MASK - Motivation, Attitude, Skills and Knowledge and NKMs' - Noticing, Keepers and Motivations.

A final report of the training will available at the end of November. Efforts are in progress to replicate this training in the Proctor Creek community.



GI Advocacy Training - Award of Certificates

For additional information contact ECO-Action at asnoibi@gmail.com or 678-576-6715.

ECO-Action's mission is to promote a safe and healthy environment by helping communities organize to address environmental health hazards. ECO-Action serves the general population, but we focus our assistance on vulnerable communities – most often rural residents, people with limited formal education, those with few resources, women, and people of color. ECO-Action's work is based on the intersection of three things – threats to human health, environmental degradation and social injustice. We envision a toxics-free Georgia where people's health is not affected by environmental threats.

Environmental Community Action Inc. (ECO-Action)

Contact Us

Feel free to contact us about how you can get involved. We are located in the Summerhill neighborhood of Atlanta at: **250 Georgia Avenue, SE, Suite 309 Atlanta, GA, 30312**

Our telephone number is (404) 584-6499 or you can email our Executive Director, Dr. Yomi Noibi at asnoibi@gmail.com.





Special Commentary from the Peoplestown Community

by Chris Lemons

I've spoken to business people about green infrastructure. As part of my negotiation talks with Carter USA. They were receptive about implementing some ideas, but not to my satisfaction. In my personal time, I have helped friends and neighbors control erosion and runoff at their homes. We were able to alleviate standing water and mosquitoes.

Green infrastructure is pivotal right now as we move further into the 21st century. Government, businesses, and citizens all need to recognize and begin to take action to preserve what's left of our ecosystem. Our natural resources have been depleted worldwide. Green infrastructure offers the opportunity to implement creative and sustainable ideas to improve our world and personal lives. We should encourage education on this issue.

Entrepreneurs, scientists and government can create brand new jobs and create an entirely new segment of business through the use of green infrastructure. We don't want future generations to suffer in our world because we were apathetic and did not love our world enough to stop harming her. By putting our imaginations and education to use we can make green infrastructure a top priority in Atlanta and around our globe.

Types of GSI



Rain Gardens

Rain gardens are vegetated or landscaped depressions designed with an engineered soil layer that promotes infiltration of stormwater runoff into the underlying soil. In addition to direct rainfall, stormwater runoff from surrounding impervious surfaces, such as sidewalks and rooftops, can be directed in to the rain garden so it can be absorbed into the ground.



Cisterns and Rain Barrels

Cisterns and rain barrels are watertight receptacles designed to catch and store stormwater off of roofs and other impervious surfaces. Cisterns are often larger than rain barrels and can be located underground, at ground level, or on an elevated stand. Rain barrels are connected to the existing downspout of a roof and reuse the stormwater for watering plants and other landscaping uses.



Subsurface Detention Systems

Subsurface Detention Systems with infiltration capability provide temporary storage of stormwater runoff underground. These systems have an open-bottom and can incorporate perforated pipe and stormwater chambers for added detention volume. Systems are primarily designed with a gravel bed that stores water until it can infiltrate into the ground.