

### Chesapeake Bay Watershed

Recognizing innovators in the field & sharing techniques that face the challenges of urban stormwater management.



Photo courtesy of Chesapeake Bay Program



#### The 2017 BUBBAs

#### Best Urban BMP in the Bay Award

to recognize the best BMPs that have been installed in the Chesapeake Bay Watershed

Presented by the Chesapeake Stormwater Network <a href="http://chesapeakestormwater.net/the-bubbas/">http://chesapeakestormwater.net/the-bubbas/</a>



### 1 Objective

The idea behind the Best Urban BMP in the Bay Award contest (BUBBA) is to recognize the best urban BMPs that have been installed in the Bay watershed. Many other organizations have offered LID design competitions to promote the implementation and adoption of LID practices in areas where they have not previously been employed. Here, in the Chesapeake Bay watershed, LID practices are commonly employed as a result of stringent stormwater management regulations and the recently implemented Bay Total Maximum Daily Load (TMDL). One of the things we have seen here at CSN is that local implementers tend to lead the way in trying new and innovative approaches to dealing with difficult stormwater problems. For example, a retrofit constructed in an ultraurban environment faces many more challenges than one in a suburban environment and there are many localities that have come up with effective ways to deal with those challenges. The goal of the BUBBAs is three-fold:

- 1 Recognize innovators in the field who are using new and innovative techniques for facing the challenges of stormwater management;
- 2 Provide an avenue for disseminating these techniques to other communities who could benefit from the lessons learned and innovative approaches; and
- 3 Engage CSN's 9,500+ member network of stormwater professionals throughout the Bay watershed to promote interactivity among the members.

### 2 Eligibility

Any project submitted for consideration of a Bubba award must meet the following criteria:

- 1. Must have been installed in the ground within the last 5 years: beginning January 1, 2012 December 31, 2016
- 2. Must be located in the Chesapeake Bay Watershed
- 3. Must <u>not</u> be a proprietary practice. However, local reproductions of proprietary technology may be submitted
- 4. Projects that were submitted for consideration in previous years are <u>not</u> eligible for consideration unless significant changes in implementation or monitoring have occurred



### 3 Cash Awards and Winner Recognition

Winners will be announced to CSN's network of 9,500 stormwater professionals within the Bay watershed.

- ❖ The top three finalists in each award category will receive certificates of recognition for placing as finalists in the award category and be featured on the CSN website
- ❖ Category winners will receive a free registration to the 2017 Bay-wide Partners Stormwater Retreat where they will be recognized at a BUBBAs awards ceremony.
- Grand prize winner (the people's choice award) will receive a cash award of \$5,000

## 4 <u>Timeline/Competition Calendar:</u>

November 1, 2016

January 6, 2017

January 2017

February 2017

March 18, 2017

Contest opens

Deadline for submissions

Preliminary screening

Convene Jury for review

Awards Ceremony at Bay-wide Retreat

### Distinguished Jury

The purpose of the jury is to review the practices and select projects which are on the cutting edge of innovation in an attempt to nominate distinguished innovators. They should represent diverse perspectives in the field of stormwater management and can evaluate the project submissions according to the many objectives of a stormwater BMP. Each category jury will consist of two steering committee members and two specialists from the list below.

- ❖ Ted Brown, <u>Biohabitats</u>, <u>Inc.</u>
- ❖ Sadie Drescher, Chesapeake Bay Trust
- Anne Guillette, <u>Arlington County</u>, VA
- ❖ Erik Michelsen, Anne Arundel County, MD
- ❖ Dana Puzey, Neighborhood Design Center
- ❖ Norm Goulet, Northern Virginia Regional Commission



- ❖ Bill Stack, Center for Watershed Protection, Inc.
- ❖ Greg Hoffman, Center for Watershed Protection, Inc.
- ❖ Erin Bennett, Blue Water Baltimore
- ❖ Scott Lowe, McCormick Taylor
- ❖ Sarah Lane, MD-DNR-University of Maryland Center for Environmental Science
- \* Rebecca Stack, <u>Design Green, LLC</u>
- ❖ Jennifer Dowdell, <u>Biohabitats</u>, <u>Inc.</u>
- Scott Crafton, <u>Louis Berger</u>
- ❖ Laura Grape, Northern Virginia Soil and Water Conservation District
- ❖ Jenny Tribo, Ventura Water
- ❖ Steve Saari, <u>DC Department of Energy and Environment</u>
- ❖ JoAnn Trach Tongson, Mahan Rykiel Associates

# 6 Award Categories

No two urban BMPS are alike! Each one is faced with a unique set of challenges and represents solutions for specific stormwater management goals. In order to recognize those unique solutions, promote their application throughout the Chesapeake Bay Watershed, and ensure broad participation entries will be accepted in the following seven categories. Applications submitted to each category should describe how the BMP meets any of the relevant criteria in that category.

#### 1. Residential BMPs

This category recognizes exceptional stormwater BMPs installed on a residential property. Example projects include: rain gardens, rainwater harvesting, vegetated roofs, conservation landscaping, tree planting, downspout disconnection, soil amendments, and other residential projects. Total investment in a residential BMP should generally be less than \$5,000. BMPs installed by homeowners, contractors or watershed groups are eligible (the designer and installer should be identified in the application). Residential BMPs will be evaluated on their ability to meet one or more of the following criteria:

- Effectively treats a substantial portion of runoff from the property
- Provides aesthetic improvements to property
- Involves simple maintenance tasks to upkeep
- Includes unique or creative design features to promote effective practice function
- Provides additional non-stormwater benefits (i.e., less basement flooding, reduced home energy costs, songbird and pollinator habitat, etc.)



#### 2. Ultra-Urban BMPs

Stormwater practices built in infill or redevelopment projects in urban areas with more than 75% site impervious cover. Example projects include: infill and redevelopment projects, green street retrofits, green roofs etc. Ultra-urban BMPs will be evaluated on their ability to meet one or more of the following criteria:

- Utilizes an innovative design to achieve a high runoff reduction/pollutant removal rate for the site
- Utilizes unique combinations of LID practices in a treatment train
- Creates an attractive site, neighborhood, or street amenity
- Effectively overcomes the infrastructure, utility, traffic, and other challenges of the ultra-urban environment
- Contributes to overall green building certification for environmental sustainability for the project

#### 3. Best Habitat Creation in a BMP

Stormwater practices that provide a unique blend of aquatic, wetland or upland wildlife habitat while still providing effective stormwater function are eligible for this category. Projects will receive extra points if the created habitat connects with existing habitat or waterways, to support enhanced function along a wildlife corridor. Projects should either create new habitat on a project site or connect with existing habitat. Projects built for mitigation and stream restoration projects are not eligible under this category (but see Best Stream Restoration). Habitat BMPs will be evaluated on their ability to meet one or more of the following criteria:

- Meets or exceeds the water quality requirements for the site if applicable
- Utilizes native plantings that provide multiple habitat zones
- Results in at least 20,000 square feet of habitat
- Attracts wildlife that were not present at the site before implementation of the project, including pollinators, songbirds, waterfowl and other wildlife
- Provides enhanced habitat function without excessive inputs of irrigation water, fertilizer or pesticides

#### 4. Best Stream Restoration

Any project in the stream corridor (including zero order streams) that is explicitly designed to enhance the function, stability, and ecosystem services of an urban stream. Stream restoration projects will be evaluated on their ability to meet one or more of the following criteria:

- The project was part of an integrated watershed-based approach.
- The project meets or exceeds clearly stated goals and objectives that were based on an assessment of critical stream functions.



- The project has successfully withstood significant flood events without damage.
- The project utilizes innovative stream restoration techniques including but not limited to floodplain reconnection, legacy sediment removal, and natural channel design.
- The project maximizes biological uplift within the stream reach.
- The project minimizes the intrusion or damage to the stream corridor or floodplain
- The project improvement is substantiated by post-construction monitoring and/or assessment

#### 5. Best Retrofit in the Bay Watershed

This category recognizes stormwater retrofit projects that improve the runoff reduction and pollutant removal capability of existing stormwater BMPs constructed in the last five years. The best retrofits will be evaluated on their ability to meet one or more of the following criteria:

- Retrofit sharply increase the water quality and/or quantity functions of the pre-existing stormwater facility (some documentation of estimated pollutant reduction should be provided).
- Solved difficult design challenges or site constraints that might be transferable to future retrofit projects
- Was cost-effective in relation to the drainage area served (some general documentation requested
- Enhances the habitat or green space values of the pre-existing stormwater practice
- Project significantly improves neighborhood or community amenities

#### 6. Best Education and Outreach Program in the Bay Watershed

Stormwater education and outreach efforts by an MS4 or a NGO that are effective in changing specific resident behaviors and actions that generate stormwater pollution in the community and goes well beyond the minimum management measures for stormwater education and public involvement required in their MS4 stormwater permits. Education and Outreach programs will be evaluated on their ability to meet one or more of the following criteria:

- The campaign focus on specific behaviors or actions by residents or businesses that generate pollutants of concern in the Chesapeake Bay watershed (e.g., nutrients, sediment, bacteria or toxics)
- Transmits a clear, simple and possibly humorous message that helps the public understand how the behavior change can improve water quality
- Effectively uses social media, the internet and traditional outreach methods to capture the eyeballs of the desired audience
- Targets specific demographic populations or under-served audiences



 Has measured or estimated the impact of the campaign in changing behaviors that influence water quality

#### 7. Best Industrial Site in the Bay

This category recognizes the most effective pollution reduction efforts conducted at an individual industrial site covered by a stormwater permit within the Bay watershed (permitted municipal public works yards and federal facilities are also eligible). Pollution control efforts can include stormwater retrofits, pollution prevention practices and elimination of spills or illicit discharges. The Best Industrial Site will be evaluated on its ability to meet the following criteria:

- Utilizes an stormwater pollution prevention plan to identify, prevent and control pollutant discharges generated within the property
- Site has been systematically assessed to prevent rainfall contact with pollutants, isolate and manage stormwater hotspot areas and identify any risks for spills, leaks or illicit discharges
- Actively engages and trains critical employees on how their daily actions can protect or improve water quality
- Provides some degree of stormwater treatment at the site, at least at stormwater hotspots
- Evidence that pavement and stormwater infrastructure (storm drains, catch basins, stormwater BMPs) at the site are routinely maintained in order to remove trapped pollutants.

#### 8. Best Maintained BMP in the Bay

This category recognizes stormwater practices that were installed prior to 2010 but have been exceptionally maintained such that the still perform the stormwater quality and quantity functions they were designed for, but also an asset to the neighborhood or community at large. Eligible owners include homeowners' associations, business owners and local governments. The Best Maintained BMP in the Bay will be evaluated on their ability to meet one or more of the following criteria:

- Evidence that the BMP has been inspected in the last three years and passed with flying colors with respect to its water quality and flood control functions.
- Has no obvious sediment, trash and debris deposits and is free of nuisance problems (geese, mosquitoes, odors)
- Vegetation in the BMP is managed to serves as a landscape amenity
- Provides some degree of aquatic or upland habitat in the practice or its buffer
- Is a place you would be happy to live or work next to.



### 7

### **Process for Submissions**

To make things easy, there will be only a one-stage submission process that takes place entirely online. An application should take a maximum of 15-20 minutes to complete and will involve filling out a single page online form and uploading a minimum of four photos (including one photo depicting the site before the BMP was installed). Participants have the option to submit additional photos and design plans that show practice design plans if they believe these materials will help our jurors understand more detailed of the project.

#### **Submission Instructions**

All submissions will need to include the following information:

- 1. Basic Project Data
- 2. Narrative
- 3. Photographs (4)
- 4. Supporting Materials optional

#### **Basic Project Data**

This data will be provided by filling out an online form that will be identical across all categories. It will include:

- 1. Type of practice
- 2. Category applying for
- 3. Applicant contact information
- 4. Practice design team (Designer, Contractor, Installer, Architect, etc.)
- 5. Runoff volume treated by the BMP (in cubic feet)
- 6. Drainage area (in acres)
- 7. % impervious surface in drainage area
- 8. Approximate cost
- 9. Geographic location information (latudinal/longitudinal info or physical address)
- 10. A 3-sentence description of the project to be displayed on our website if the project is chosen as one of our finalists

#### **Narrative**

Applicants are required to submit a brief narrative (2 pages, 1,300 words **maximum**). To read an exemplary project narrative from last year's contest, please visit the "register your project" page on our website.

Your narrative should explain:

- 1. Why the project is being submitted for a specific award category and
- 2. How their project meets one or more of the category design criteria



In addition, contestants will be asked to respond to the following in their narrative:

- Intent of the project and key objectives accomplished
- Major site, design, or construction challenges you had to overcome or why the project is unique
- Any education & outreach or community involvement that occurred as part of the project

Narratives that specifically spell out how the project meets the above, will have a better chance in the contest. To see an example of an exemplary narrative from last year's competition, click <u>here</u>.

#### **Photographs**

All photographs will become property of CSN who has the right to use them as long the authors are attributed with a correct citation.

- 1. A minimum of 4 photographs are required for consideration of an award.
- 2. This includes one of the site before the BMP was installed.
- 3. All photograph submittals should be in jpg/png format
- 4. Each photograph should be labeled with a descriptive file name to explain what they are trying to portray or participants should include an additional document that provides this information

#### **Supporting Materials**

Participants have the option to submit additional photos and design plans that show practice design details that will be helpful for reviewing more detailed elements of the project.

All supporting materials will become property of CSN and will not be returned.

Submit Your Project Here: <a href="http://chesapeakestormwater.net/the-bubbas/">http://chesapeakestormwater.net/the-bubbas/</a>