BEST URBAN BMP in the Bay Award

The BUBBAs

Recognizing innovators and showcasing techniques to solve the challenges of protecting and restoring urban watersheds.

CHESAPEAKE STORMWATER NETWORK

2020/2021

BEST URBAN BMP in the Bay Award

The 2021 BUBBAs

Best Urban BMP in the Bay Award
*to recognize the best management practices that have been installed
in the Chesapeake Bay Watershed*

BUBBAs Benefactor Sponsors

CENTURY ENGINEERING

Biohabitats

BUBBAs Booster Sponsors

Stantec

Opti

UNDERWOOD & ASSOCIATES
LANDSCAPE ARCHITECTURE ♦ ECOLOGICAL RESTORATION
A DESIGN/BUILD Co.

SMC
STORMWATER MAINTENANCE
& CONSULTING

BUBBAs Backer Sponsors

CITYSCAPE
ENGINEERING, LLC

Land studies

Hirschman Water &
Environment, LLC
Stormwater & Stewardship

Presented by the Chesapeake Stormwater Network
http://chesapeakestormwater.net/the-bubbas/

2020/2021

1   Contest Objective

Now in its 5th year, the Best Urban BMP in the Bay Awards contest (BUBBAs) recognizes the best practices and programs being implemented in the urban environment across the Chesapeake Bay watershed. The BUBBAs shine a light on local innovators using creative approaches to protect and restore local watersheds. While other low impact development (LID) competitions focus on the design of new stormwater practices, CSN wants to also recognize on-the-ground techniques being used to tackle difficult stormwater problems. Put simply, the goal of the BUBBAs is three-fold:

1. Recognize innovators in the field who are using new and creative techniques to treat runoff and protect streams;

2. Share these innovative techniques with other communities who could benefit from the lessons learned; and

3. Inspire interaction among our 11,000+ member network of stormwater professionals throughout the Bay watershed and beyond.

2   Eligibility

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

1. Must have been installed in the ground (or implemented) within the last 5 years: beginning January 1, 2016 – December 31, 2020

2. Must be located in the Chesapeake Bay Watershed

3. Must not be a proprietary practice. However, local reproductions of proprietary technology may be submitted.

4. Projects that were submitted for consideration in previous years are not eligible for consideration unless they have been significantly changed

3   Cash Awards and Winner Recognition

Winners will be announced to CSN's network of 11,000 stormwater professionals within the Bay watershed and press releases will be distributed to local media partners.

- ❖ The top three finalists in each award category will receive certificates of recognition and will be prominently featured on the CSN website
- ❖ Category winners will be recognized at a virtual awards ceremony and have the option to be featured in future CSN communication programs, including webcasts and newsletter spotlights.
- ❖ Two Grand Prize winners will be selected by a people's choice vote. The overall winner will receive a cash award of $5,000. A "Small but Mighty" winner will receive a cash award of $3,000.

4   Timeline/Competition Calendar:

December 7, 2020	Contest opens
February 5, 2021	Deadline for submissions
February 2021	Design Jury begins project review
Week of March 7, 2021	BUBBAs Awards Ceremony & Popular Vote Kickoff
March 30, 2021	Grand Prize Winner Announced

5   Distinguished Jury

BUBBAs category winners are selected by a distinguished jury of stormwater professionals who represent diverse perspectives in the field of stormwater and watershed management. Each category will be reviewed by a jury of 5-6 members from the list below, who will evaluate project submissions based upon the criteria outlined in Section 6 of this guide using their own professional judgment.

Name	Affiliation
Joe Battiata	City of Hopewell, Virginia
Kate Bennett	Montgomery County, Maryland
Aaron Blair	EPA
Ted Brown	Biohabitats
Katherine Brownson	U.S. Forest Service
Jim Caldwell	Howard County, Maryland (retired)
Jenn Dowdell	Biohabitats
Sadie Drescher	Chesapeake Bay Trust
Suzanne Etgen	Anne Arundel Co. Watershed Stewards Academy
Lou Etgen	Gunpower Valley Conservancy
Liz Feinberg	Calvan Environmental
Rachel Felver	Alliance for the Chesapeake Bay
Mary Gattis	Bay Journal
Heather Gewandter	City of Rockville, Maryland
Beth Ginter	Chesapeake Bay Landscape Professionals
Norm Goulet	Northern Virginia Regional Commission
Anne Guillette	City of Arlington, Virginia
Charlene Harper	HG Design Studio
Alana Hartman	West Virginia Dept. of Environmental Protection
Cecilia Lane	District Dept. of Energy and Environment
Sarah Lane	Maryland Dept. of Natural Resources
Neely Law	Fairfax County, Virginia
Kelly Lindow	CityScape Engineering
Scott Lowe	McCormick Taylor, Inc.
Shannon Lucas	KCI
Claire Mulhardt	Capital Region Water
Liam O'Meara	EQR
Amanda Rockler	Maryland Sea Grant
Josh Running	Stantec
Tim Schueler	Hazen and Sawyer
Rebecca Stack	Design Green LLC
Bill Stack	Center for Watershed Protection
Jill Sunderland	Hampton Roads Planning District Commission
JoAnn Trach Tongson	Mahan Rykiel Associates
Rebecca Winer-Skonovd	Biohabitats

6   <u>Award Categories</u>

Entries will be accepted in seven categories this year. Each category has its own relevant criteria that should be addressed within your project narrative. Remember that to really stand out, tell us how your project goes above and beyond any applicable stormwater or restoration requirements to represent something unique or innovative. If you are unsure what category to submit your project under, please contact David Wood (Wood.CSN@outlook.com).

Applications submitted to each category should describe how the BMP meets any or all of the relevant criteria in that category.

Best Habitat Creation in an Urban Watershed

a) Any restoration project that creates or restores a high-quality blend of wetland or upland wildlife habitats in the urban landscape are eligible in this category.

b) Separate awards will be made for projects that are:

    i. primarily forest creation, such as riparian or urban forest planting that achieve a minimum 75% tree canopy, or

    ii. primarily wetland or meadow creation or restoration.

c) All projects will receive extra points if they:

    i. connect with other habitat areas or the stream corridor

    ii. treat the quality of stormwater runoff from upland development or

    iii. attract pollinators, amphibians, songbirds, waterfowl and other wildlife to the project site.

NARRATIVE SHOULD INCLUDE:

- Size of planting site (acres)

- Species of tree or meadow planted

- Site conditions prior to planting

- Description of any biological monitoring conducted

d) Projects that primarily involve restoration of the urban stream corridor should be submitted in the "best stream restoration" category. Any project primarily built for environmental mitigation purposes is not eligible under this category.

Your project narrative should describe how the habitat you create:

i. Utilizes native plantings suitable to the soil and water conditions at the site to create diverse habitat zones
ii. Results in at least 20,000 square feet of habitat that is protected from future disturbance
iii. Has a strong plan to maintain habitat over time and help control invasive plants
iv. Encourages access for the public to explore and learn about the habitat

Best Residential Stewardship Practice in the Bay

a) This category recognizes exceptional stormwater practices installed on a residential property. Example projects include: rain gardens, rainwater harvesting systems, vegetated roofs, conservation landscaping, tree planting, downspout disconnection or soil amendments.

b) Special consideration is given to projects subsidized under local government incentive programs.

c) Total investment in residential practices should be generally limited to less than $5,000. They can be installed by homeowners, contractors or watershed groups (if possible, please identify the designer/installer in your application).

d) Your project narrative should describe how your residential stewardship practice(s) meet the following criteria. The best projects should:
i. Effectively treat a substantial portion of runoff from the property

NARRATIVE SHOULD INCLUDE:

- Runoff volume treated

- Practices used

- Landscaping objectives

- Other homeowner benefits (besides water quality improvement)

ii. Provide aesthetic improvements to the property
iii. Include unique or creative design features to improve practice function
iv. Provide other benefits to the homeowner such as reduced basement flooding, reduced heating or cooling costs or 'backyard" habitat for songbirds and pollinators

Best Stream Restoration Project in the Bay

a) The category recognizes outstanding projects in the stream corridor that are explicitly designed to enhance the function, stability and ecosystem services of an urban stream.

b) Your project narrative should describe how your project meets the following criteria. In general, the best restoration projects should:

i. Reflect an integrated approach to restore the stream and its floodplain.
ii. Meets or exceed clearly stated objectives to improve stream habitat and reduce pollutant delivery to the Bay (some quantitative documentation is helpful here)
iii. Successfully withstand significant floods without failing
iv. Improve aquatic and terrestrial habitats in the stream reach and floodplain.
v. Promote public access, watershed education or neighborhood outreach along the stream corridor.

NARRATIVE SHOULD INCLUDE:

- Length of restored reach

- Estimate of pollutant load removed

- Description of any monitoring efforts

- Benefits achieved beyond better water quality

Best Green Infrastructure Practice in Ultra-Urban Areas

a) This category recognizes the best application of green infrastructure (GI) practices that are built in highly urban areas to reduce flooding and pollutant delivery (more than 75% impervious cover).

b) Some examples include: green streets, walls, roofs or parking lots, rainwater harvesting systems, urban forestry practices, and permeable hardscapes.

c) Any private or public sector redevelopment projects that creatively integrate green infrastructure practices into their site plans are encouraged to apply.

d) Your project narrative should describe how your GI project meets the criteria below. In general, the best projects:

  i. Utilize an innovative design to achieve a high reduction of runoff and pollutants from the site
  ii. Link green infrastructure practices together into an effective treatment train
  iii. Create an attractive site, neighborhood or street amenity
  iv. Effectively overcome the challenges encountered in the ultra-urban environment such as traffic, utilities and other underground infrastructure
  v. Contribute to one or more of the following:
      (a) increased urban tree canopy
      (b) building sustainability (e.g., energy savings, green building certification, etc.)
      (c) easier and safer pedestrian movement
      (d) public art

NARRATIVE SHOULD INCLUDE:

- Runoff volume treated

- Approximate drainage area and amount of impervious cover

- Description of urban site constraints

Best Retrofit in the Bay

a) This category recognizes the best stormwater projects constructed in the last five years to improve runoff quality from areas that were developed in the past without effective stormwater treatment.

The retrofit can involve either modifications to an existing stormwater BMP or construction of new BMP.

b) Your project narrative should demonstrate how your stormwater retrofit meets the criteria below. The best contenders in this category will:

   i.   Sharply reduce pollutants and flooding from the existing developed area (pollutant reduction estimates using the retrofit curves are suggested)
   ii. Incorporate new or innovative engineering approaches to maximize pollutant removal (e.g., floating wetlands, smart BMPs, media enhancements, etc.)
   iii. Solve difficult design challenges or site constraints that might be transferable to retrofit projects in other communities
   iv. Be reasonably cost-effective in treating runoff generated from its impervious acreage (some general cost documentation is requested)
   v.   Enhance local habitat, create attractive green space or serve as a neighborhood or community amenity.

NARRATIVE SHOULD INCLUDE:

- Runoff volume treated

- Estimate of pollutant load removed

- Approximate drainage area and amount of impervious cover

- Total cost of the retrofit

Best Outreach Campaign in the Bay Watershed

a) This category recognizes effective stormwater education and outreach campaigns that seek to change behaviors that tangibly reduce stormwater pollution in a community.

b) The program can be offered by a municipal stormwater agency or nonprofit organization that goes well beyond the minimum required by their local stormwater permits.

c) Your project narrative should describe how your campaign or program met the criteria below. In general, the best campaigns will:

   i. Focus on specific behaviors or actions by residents or businesses that generate pollutants of concern in the Chesapeake Bay watershed (e.g., nutrients, bacteria, plastics or toxics)
   ii. Transmit a clear, simple and possibly humorous message that helps the public understand how the behavior change can improve water quality
   iii. Use a mix of social marketing, new media and traditional outreach methods to capture the eyeballs of the desired audience
   iv. Improve diversity, equity, inclusion and justice (DEIJ) by building relationships and growing capacity with underrepresented communities to address community-identified needs
   v. Have well-defined metrics for evaluating the success of the campaign

NARRATIVE SHOULD INCLUDE:

- Water quality problem targeted

- Stewardship behavior targeted

- Description of outreach techniques used

- How success or progress was tracked

Most Innovative Stormwater Permit Implementation

a) The category recognizes specific program innovations in how local stormwater permits are administered that directly lead to improved water quality outcomes in local receiving waters.

- Permit type (Phase I, Phase II, Non-traditional)

- Description of innovative program

- Quantification of benefits (pollutant reductions, rate of practice delivery, cost savings, etc.)

   i. The program can be administered by a municipal or non-traditional MS4 agency located with the boundaries of the Chesapeake watershed. The innovative function should have been instituted within the last five years and go beyond the minimum required under your local stormwater permit.

   ii. Examples of local program functions may include water quality monitoring, stormwater asset management, GIS mapping, protocols for inspecting and maintaining BMPs or any other function undertaken to effectively manage your local stormwater program.

   iii. Separate awards will be made to large Phase 1 communities, and to smaller localities and non-traditional agencies operating under Phase 2 MS4 permits. Note that local education and outreach programs are NOT eligible for this category (but can be submitted under category 6).

b) The strongest contenders in this category should be able to describe in their narrative how their program innovation helped to improve local water quality and meets two or more of the following criteria. The local innovation should:

   i. Improve delivery of BMPs to achieve greater local pollutant reductions.
   ii. Target new pollutant sources/hotspots in the community.
   iii. Engage new community partners, stakeholders or non-stormwater agencies.

      iv.   Create budget cost-savings or produce other community benefits.

      v.   Showcase lessons that are helpful and transferable to other Bay communities.

7   Process for Submissions

All applications are submitted online in a single step. Once the project narrative is written, an application should take a maximum of 15-20 minutes to complete and will involve filling out a one-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 if they believe these materials will help our jurors understand the project.

Submission Form: http://chesapeakestormwater.net/the-bubbas/bmp-contest/

Submission Instructions

All submissions will need to include the following information:
1. Basic Project Data
2. Project Narrative
3. Photographs (4 – including one "before" – preferably as .jpg)
4. Supporting Materials *optional*

Basic Project Data

The following project data are required to support your submission:
1. Type of practice(s) or program
2. Category applying for
3. Applicant contact information
4. Practice design team (Designer, Contractor, Installer, Architect, etc.)
5. Approximate cost
6. Geographic location information (latitudinal/longitudinal info or physical address)
7. 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 address:
1. Why the project is being submitted for a specific award category
2. How their project meets one or more of the category design criteria
3. Category specific information included in Section 6

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. Remember, you are selling this project to our jurors, tell them why your project or program is awesome!

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 (jpg preferred)
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:
http://chesapeakestormwater.net/the-bubbas/2021-bubbas

Questions about categories or submissions should be directed to David Wood (Wood.CSN@outlook.com).