



Green Streets, Green Jobs, Green Towns Grant Program

FY 23 Request for Proposals



Chesapeake Bay Trust

108 Severn Avenue, Annapolis, MD 21403

(410) 974 – 2941 ♦ www.cbtrust.org

Green Streets, Green Jobs, Green Towns Grant Program

At A Glance

Program Summary:

The Green Streets, Green Jobs, Green Towns Grant Program supports design and/or implementation of green streets, community greening, and urban tree canopy projects that enhance livability in cities and communities that can be replicated elsewhere, in addition to white papers that address these topics.

Deadline:

Wednesday, March 8, 2023 at 4:00 PM EST

Eligible Project Locations:

This program funds projects throughout the Chesapeake Bay Watershed, including DE, MD, PA, VA, WV, and Washington, D.C.

Request Amounts are generally up to:

- \$15,000 for conceptual plans
- \$30,000 for engineered design projects
- \$150,000 for implementation projects
- \$50,000 for community greening projects
- \$20,000 for white papers and tool development
- For green streets charrettes/technical assistance projects, awardees will not receive direct funding; G3 partners will provide support through technical assistance, if awarded.

Submit Your Application:

Follow the instructions online at

<https://cbtrust.org/grants/green-streets-green-jobs-green-towns/>

Contact:

Nguyen Le, Senior Program Officer, 410-974-2941 ext. 110, nle@cbtrust.org

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Introduction and Program Goals

The Chesapeake Bay Green Streets, Green Jobs, Green Towns (G3) Grant Program (<https://cbtrust.org/grants/green-streets-green-jobs-green-towns/>), funded by the United States Environmental Protection Agency (EPA) Region III, the West Virginia Department of Environmental Protection (WV DEP), and the Chesapeake Bay Trust (Trust), welcomes requests for urban green infrastructure proposals.

The goal of the Chesapeake Bay G3 Grant Program is to help communities develop and implement plans that reduce stormwater runoff, increase the number and amount of green spaces in urban areas, improve the health of local waters and the Chesapeake Bay, and enhance quality of life and community livability. This work is intended to facilitate and encourage communities' integration of green techniques into traditional gray infrastructure projects.

This collaborative effort supports implementation of the Chesapeake Bay Protection and Restoration Executive Order (<https://federalleadership.chesapeakebay.net/page/About-the-Executive-Order.aspx>) and serves as a key component of EPA's Green Streets, Green Jobs, Green Towns (G3) Partnership. The G3 Partnership provides support for local, grassroots greening efforts to reduce stormwater runoff from communities in urbanized watersheds. EPA Region III has provided support for the G3 Partnership since its inception in 2011.

As a result of the 2021 Executive Orders (<https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad>) issued by President Biden, the Trust along with EPA Region III and WV DEP are committed to incorporating climate change mitigation and adaptation into the G3 Partnership with a focus on environmental justice for disadvantaged communities that have been historically marginalized and overburdened by the impacts of climate change.

Applicants must be interested in integrating green stormwater infrastructure as a matter of standard practice in current or future strategies. The G3 program is intended to support and foster market incentives for green infrastructure by building local and county-level capacity to implement innovative and cost-effective projects.

Expanding the quantity and quality of green spaces in urban areas is critical for protecting and restoring the health of local waterbodies. Increasing green areas and building green practices into urban planning to address stormwater runoff and stream channel erosion can reduce pollutants, such as sediment, nitrogen, and phosphorus from entering our waterways. Several practices can be employed to enhance green spaces in communities, including implementing urban green stormwater practices, increasing urban tree canopy, replacing impervious surfaces with more permeable materials, reducing stormwater impacts (e.g., flow, volume, thermal) to streams, and greening urban vacant lots. Greening urban areas and communities is a cost-effective conservation practice that has economic and human health benefits.

A "green street" is a technique that can include several green infrastructure practices, such as street trees, rain gardens, pervious pavement, bioretention cells, and bioswales, in one location that is centered around and connected to a street site. It is expected that these practices are more efficient (in design, construction, and performance) and potentially have a smaller footprint than conventional practices to reduce and treat stormwater. In addition, the green street often includes other elements such as energy-efficient lighting, increased walkability or bikeability, slowed traffic around stormwater practices for quality of life purposes, reduction of the urban heat effect, and similar co-benefits that all increase a community's livability.

A green street:

- minimizes the impact on the surrounding area through a natural system approach that incorporates a variety of water quality, energy-efficiency, and other environmental best practices;
- reduces the amount of water that is piped and discharged directly to streams and rivers, protecting them from erosion;

- makes the best use of the street tree canopy for stormwater interception, temperature mitigation, and air quality improvement;
- incorporates climate resiliency and flood hazard mitigation planning;
- encourages pedestrian and/or cyclist access;
- provides an aesthetic advantage to a community and economic advantage to business districts that are greened; and
- can have human health benefits.

Projects funded under this program will help stimulate the green jobs market and enable families to work where they live and play. This initiative will empower communities that have felt disenfranchised to gain better access to restoration resources that support local improvements while also being recognized for their contributions in overall watershed protection.

Green infrastructure projects can increase a community’s resilience to flooding, water contamination, and erosion. The Trust aims to invest in projects that have the longest potential longevity, even after the award period has ended. To ensure that climate adaptation is addressed, the Trust seeks to support projects that incorporate innovative and sustainable solutions such as water program integration, flood mitigation efforts, and hazard mitigation planning. If your community is in need of assistance to overcome an implementation obstacle for how green streets and green infrastructure can work to reduce flood risks and improve climate change resiliency, please visit the US EPA Climate Change Adaptation Resource Center (<https://www.epa.gov/arc-x>). There may be a potential for your community to participate in a future charrette (planning and visioning exercise) to provide technical assistance tailored to your needs through this call for projects.

About the Chesapeake Bay Trust

The Chesapeake Bay Trust (Trust) shares a bold vision for a restored and protected Chesapeake Bay watershed and other natural resources in our area—from the Coastal Bays to the Chesapeake to the Youghiogheny River. We uniquely empower local community-based groups on the ground with the resources they need to take on a meaningful and measurable role in restoring forests, streams, rivers, bays, wildlife, and more in their own communities. The Trust empowers these groups by providing grants and technical assistance. Since 1985, the Trust has awarded \$140 million in grants and engaged hundreds of thousands of resident stewards in projects that have a measurable impact.

Eligible Project Locations and Project Types

Project Locations

All communities in Maryland and throughout the Chesapeake Bay watershed in portions of Delaware, Pennsylvania, Washington D.C., West Virginia, and Virginia are eligible. To determine if a project site is in the Chesapeake Bay watershed see the online map at <https://cbtrust.org/grants/green-streets-green-jobs-green-towns/>.

Project Tracks

Applicants can request funds from one of the following project tracks detailed below. The general request amount for each project track is provided as guidance, though projects can exceed the request level with proper justification. **This grant program prioritizes the planning, design, and/or implementation of green street projects (tracks 1, 2, and 3).**

Applications for the green street concept plans, green street engineered designs, green street implementation, and community greening project types must not be required for new or re-development, regulatory mitigation, or regulatory offset.

Track 1: Conceptual Plans for Green Streets/Green Infrastructure Projects (generally less than \$15,000)

This project track supports the development of a conceptual plan for green streets/green infrastructure projects. A concept plan is the first step in the planning process. The conceptual Green Street should be part of a broader, integrated community watershed plan. Conceptual plans for large-scale, high-performing green street/green stormwater infrastructure projects as defined above must treat over one inch of runoff. One of the most important criteria used to evaluate conceptual design proposals is the likelihood of ultimate implementation.

Track 2: Engineered Designs for Green Street/Green Infrastructure Projects (generally less than \$30,000)

This project track supports the development of engineered designs for green streets/green infrastructure projects. Proposals for engineered designs should include all of the design elements that would result in a final design that is implementable. Engineered plans for large-scale, high-performing green street/green stormwater infrastructure projects as defined above must treat over one inch of runoff. Such projects should be connected to a larger vision for a Green Town (e.g., comprehensive green streets, community resiliency programs, greening of school grounds, etc.). Cost projections shall be a part of the final design product and will include costs associated with implementation, operation, and maintenance. One of the most important criteria used to evaluate engineered design proposals is the likelihood of ultimate implementation.

The output of the award (i.e., the design) must be permissible by the appropriate state environmental agency and all other appropriate local, state, and federal entities. Generally, applicants have a conceptual design in hand when they apply for engineered design funding, and it is strongly suggested that a permit pre-application meeting based on that conceptual design be completed or requested prior to application submission to this grant program. State permit pre-application meetings are coordinated through Maryland's Department of the Environment (MDE), Virginia's Department of Environmental Quality (VADEQ), the District of Columbia's Department of Energy and the Environment (DOEE), Pennsylvania's Department of Environmental Protection (PADEP), West Virginia's Department of Environmental Protection (WVDEP), or Delaware's Department of Natural Resources and Environmental Control (DNREC).

At the completion of an engineered design project, the proposed designs and specification deliverables should be at least 90% complete. At a minimum, the output of a design project must include:

- Site map that includes:
 - Property boundaries;
 - Project boundary;
 - Field-run topographic survey of existing conditions;
 - Drainage area to the practice and impervious cover in the drainage area;
 - Mapped utilities and roads;
 - Proposed design (grade changes, drainage structures, rock placement, etc.); and
 - Landowner signature on the plan, which indicates project endorsement
- Copy of soil survey mapping and field confirmation of soil drainage class;

Contact the Trust for assistance at any point in your application!

Applicants are **strongly encouraged** to contact us early in proposal development. The Trust can help you develop your project idea, assess its fit within this grant program, and discuss partnerships to get you the technical assistance you need. A screening site visit for projects you may be considering can be arranged to refine your project idea for this program. Contact Nguyen Le at nle@cbtrust.org or (410) 974-2941 x110.

- Natural Resource Conservation Service (NRCS) web soil survey can be found at <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>
- Site details (e.g., topographic lines, land uses, and soils) are available at the Water Resources Registry where you can create an output with the desired metrics requested here and upload with your application: <http://watershedresourcesregistry.com/>
- Planting plan (plant locations and plant types);
 - The Trust has resources to help you get started with using native plants: https://cbtrust.org/wp-content/uploads/External_Final-Trust-Draft-Plant-Species-Selection-Guide_May2021.pdf
- Site photos; and
- Calculations of the 1) total drainage area treated; 2) impervious acres treated; and 3) estimated cost per acre treated (at a one-inch runoff level).

Track 3: Implementation/Construction of Green Streets/Green Infrastructure Projects (generally less than \$150,000)

This project track supports the construction of green streets and large-scale green infrastructure projects (e.g., green roofs, rain gardens, bioretention cells, etc.).

The most competitive implementation/construction proposals will result in a complete green street that leverages funding from other sources for the gray infrastructure components (streets, sidewalks, utility upgrades, etc.), and/or repaving of a street or road realignment. Applicants are also encouraged to leverage funds from hazard mitigation (e.g., Federal Emergency Management Act (FEMA)) or other water quality programs (i.e., <https://training.fema.gov/is/courseoverview.aspx?code=IS-319.a>). Local communities interested in pursuing a green streets initiative may consider their local government’s road construction and maintenance schedule to infuse new green street elements into existing construction plans. This is a smart, cost-effective strategy because bioretention cells, permeable pavement, street trees, and other green street elements can be incorporated into already planned street construction projects at minimal additional cost. Completed engineered designs are strongly preferred.

All requests must include: 1) a calculation of total drainage area treated; 2) calculation of impervious acre treated; and 3) estimated cost per acre treated (at a one-inch runoff level). It is also preferred that the estimated nutrient and sediment load reduction calculations for nitrogen, phosphorus, and sediments are provided (the Trust expects to share a pollutant load reduction calculator for applicants to use prior to the deadline and will post to the grant program webpage once available). When calculating the cost of green infrastructure or cost per acre treated, proposals should separate these costs from traditional gray infrastructure costs that would have been incurred whether or not green elements were included (e.g., traditional paving, repair, standard mobilization, utilities, etc.). Proposals must also clearly list which costs were included in the cost per acre treated, as well as the formulas used to calculate/establish treatment area.

The majority of projects funded through this program have a per impervious acre treated cost of \$100,000 to \$200,000 in total project cost (excluding any gray infrastructure elements such as paving, sidewalks, etc.) and \$70,000 to \$150,000 in requested amount (not including match proposed). ***Funders consider a very cost-effective project as one that costs less than \$100,000 per impervious drainage acre treated (at a one-inch runoff level), not including costs of gray infrastructure elements.*** The strongest proposals will incorporate innovative green infrastructure best management practices (BMPs) and demonstrate cost-effectiveness of such practices. Therefore, you should consider reducing cost by working together, even in your own community, to reduce the cost per impervious acre treated. Consider using free or discounted resources listed in [Appendix A](#). Provide justification if your requested amount per impervious acre treated is more than \$200,000.

New this year – WV DEP funding partners welcome requests for stream restoration design and implementation projects from West Virginia Chesapeake Bay communities. These applications must demonstrate project need, landowner permission, use of the field’s best practices and latest research (e.g., Pooled Monitoring Initiative research that is available at <https://cbtrust.org/grants/restoration-research/>), assessment of alternatives demonstrating the proposed restoration was appropriate for the site, minimization and avoidance of natural resources impacts like tree canopy, ability to proceed through the permit and construction process, and cost-effectiveness. See [Appendix B](#) for details on this project type. By supporting stream restoration projects, the WVDEP’s objective is to support another aspect of the G3 grant program’s goal of improving the health of local streams and the Chesapeake Bay. This objective also concurs with a key component of the WV Watershed Implementation Plan (<http://www.wvchesapeakebay.us/WIP/WIP3.cfm>) to implement stream restoration as a co-benefit best management practice for attainment of state water quality standards.

Leveraging ongoing planning, design, and construction activities and private capital is important; the strongest proposals will describe projects pursued in concert with existing street and other gray infrastructure re-design and/or repair projects. The strongest proposals will also consider sustainability in terms of building and strengthening community coalitions that will continue to carry urban greening programs forward beyond the life of the award, address climate change adaptations, and support hazard mitigation planning efforts.

Track 4: Community Greening (generally less than \$50,000)

This project track supports small to medium-scale community greening projects (e.g., tree plantings, community gardens and urban farms, pollinator gardens, conservation landscaping, reclaiming vacant lots to install site appropriate practices, etc.).

Trash-strewn, overgrown vacant lots and communities barren of trees and other green elements afflict urban neighborhoods. As envisioned in strategies such as the Baltimore Green Network Plan, vacant lots and barren streets can offer an opportunity to strengthen communities by bringing community members together to create and maintain community green space and walkable neighborhoods.

Applicants may request funds for tree plantings, reclaiming vacant lots, installing community gardens and urban farms, implementing pollinator gardens, implementing other green infrastructure stormwater BMPs, and routine maintenance as identified through an approved maintenance plan. Funds may be requested for design, plant material, rental of equipment, up to two years of maintenance, and payment of maintenance staff.

Community greening projects will be evaluated on several criteria including the number of trees planted and total project cost (urban tree planting projects are generally in the range of \$150 to \$450 per tree planted, which includes the trees themselves, supplies, labor, 1 to 2 year maintenance costs, and tree pit work when necessary), community partnerships demonstrated, outreach and education to the community, and the amount of surface area being replanted or impervious area being treated (if a stormwater BMP is proposed), strength of the maintenance plan, budget for maintenance, inventory of maintenance equipment owned or available to the awardee, maintenance schedule, and ultimate community benefit for the project.

Track 5: White papers (generally less than \$20,000)

For projects whose main element is tree planting, we encourage applicants to apply to the Urban Trees Grant Program (<https://cbtrust.org/grants/urban-trees/>). The Urban Trees Program aims to support trees planted that will green communities; enhance quality of life, human health, and community livability by improving air quality; reducing urban heat island effect; and mitigate the effects of climate change.

To help determine if a community is eligible, view the online map at <https://cbforg.maps.arcgis.com/apps/webappviewer/index.html?id=3bce1e558f5a46cd86287ee5929cf079>. This map was produced by the Chesapeake Bay Foundation and can be used as a guide; the applicant has the ultimate responsibility for site eligibility.

This project track supports white papers that summarize the analysis of one or more aspects of green infrastructure or tools that promote green infrastructure efforts. White papers may be proposed that summarize research of a priority subject to further green infrastructure use. Tools may be proposed that will bridge a gap or move applications forward to further green infrastructure use.

Examples of white paper topics and tools include, but are not limited to:

- how green streets and green infrastructure help to drive local economic development by creating green jobs;
- providing tools and/or increasing our understanding of the potential impacts of climate change through the interactions between green infrastructure, community resilience to flooding, hazard mitigation, and other ways green streets can help make communities more resilient (e.g., methods to increase green infrastructure in local hazard mitigation planning, designing/siting green infrastructure to meet current and future rain events);
- providing a tool/guidance geared toward G3 applicants (for example) to help site and/or plan for future green infrastructure, such as estimating the contributing drainage area to a site and the benefit (water quality improvement/volume control) for proposed green infrastructure solutions (e.g., bioretention vs permeable pavement options);
- how to increase incorporation of green infrastructure in municipality public works and planning operations (e.g., reduce communication barriers, integrated planning, etc.);
- how to incentivize maintenance operations, reduce maintenance costs, and innovative techniques that contribute to the overall long-term success and treatment of green infrastructure projects;
- innovative strategies and techniques for improving long-term project maintenance through innovative design considerations, development of regional best management practices or pilots that can be replicated across the Chesapeake Bay if successful, and/or creative ways to fund and sustain maintenance to ensure projects are aesthetically pleasing (beautiful to the passerby/owner) and continue to function properly to benefit the communities where they are installed;
- job training for existing professionals and green job workforce development for those interested in environmental careers, to increase overall knowledge of green infrastructure maintenance techniques, inspection frequencies, and how to address common issues to help improve overall project success and sustainability;
- increasing green career opportunities in underserved communities to address environmental justice through green job training and workforce development programs (for more on environmental justice, visit EPA's Environmental Justice information page at <https://www.epa.gov/environmentaljustice>);
- providing innovative green street ideas that provide additional environmental, economic, and social benefits to communities;
- how to increase the understanding and measure additional benefits of green streets/community greening (e.g., litter reduction, crime reduction, quality of life for residents);
- how to use green schools as an anchor for a community green street; and/or
- increasing the understanding of health and health economics of green space installation in hospitals and other care facilities.

Clearly outline how the white paper product or tool will lead to better implementation of green streets and how the information will be shared with priority audiences. Funding partners anticipate funding no more than one or two projects under this track per year.

Track 6: Green Street Charrette/Technical Planning Assistance

A charrette is a planning or visioning session where community members, planners, developers, and other key stakeholders collaborate on the development of a green plan, vision, or design for a project. Funding partners anticipate providing technical assistance and financial support for a green street charrette and technical

assistance to develop concept plan and/or engineered design phase for declined proposals that meet the following criteria:

- Submit an application for a concept plan (project type #1) or engineered design (project type #2);
- Demonstrate a need for additional support to successfully develop robust plans (i.e., with additional support through a charette and technical assistance targeted to the project will realize a product/outcome);
- Designs support G3 objectives and address community need, hazard mitigation, and economic uplift to improve local quality of life and resilience to climate change;
- Demonstrate a willingness and ability to participate in a charette; and
- Demonstrate a willingness and ability to participate in additional technical assistance (i.e., contractual support to develop the concept plan and/or engineered design).

In addition, the following criteria will also be considered during the selection process:

- Applicants or jurisdictions that have not been awarded a grant through the Green Streets, Green Jobs, Green Towns Grant Program will be prioritized;
- Applications should provide information about other related activities (e.g., planned road projects, redevelopment, etc.), planned greening efforts, community and/or regional projects, and activities which may be relevant to a potential charrette; and
- Applications that can provide match funding and involve a variety of public and private partners are encouraged.

G3 partners will provide support through technical assistance, if awarded. Charrette awardees will not receive direct funding through this grant program and instead will work directly with the G3 funding partners who will provide direct contractual support for the technical assistance as determined through the charette planning process. Funding partners anticipate funding one or two projects under this track per year.

Evaluation Criteria

The following criteria will be used by external technical expert reviewers to evaluate applications. Refer to the “Application Review Process” section for more information about the review process.

Criterion	Criterion Description and Guidance	Scale
Justification	<ul style="list-style-type: none"> • Is the need for the project clearly identified? • Can the reviewers clearly understand what you are proposing to do and where you are proposing to do it? • Is the project proposed consistent with the intent of the project type selected? • Are the budgeted line items justified in the project narrative? • Is the project cost-effective (\$150,000 or less per impervious acre treated)? 	0 to 20 points
Likelihood of Project Success	<ul style="list-style-type: none"> • What is the likelihood of success if this project were to move forward? • Are methodologies and/or designs sound and consistent with best practices? • Has the applicant procured landowner permission, if necessary? • Has a permit pre-application meeting been conducted, if applicable? • Will the project be properly inspected during/after construction to ensure it is functioning as intended? 	0 to 20 points

	<ul style="list-style-type: none"> • Does the project have an appropriate timeline and scale of budget to reflect the intended scope of work? • Are the selected partnerships appropriate (e.g., for green street projects, has right of way been resolved)? • Will the project be completed in one year or less? 	
Cost-effectiveness/ Budget	<ul style="list-style-type: none"> • Is the budget appropriate and cost-effective? <ul style="list-style-type: none"> ○ For green street implementation projects, costs of proposals will be compared to the standard of \$150,000 per impervious acre treated. ○ For urban tree canopy projects, costs will be compared to the standard of \$150 to \$450 per tree planted, which includes the trees themselves, supplies, labor, two-years of maintenance costs, and tree pit work when necessary. • For work involving subcontractors: <ul style="list-style-type: none"> ○ Were estimates from at least three consultants or contractors considered? or ○ Was a competitive bid process used? • In-kind and cash match is not required but will be viewed favorably as it will increase cost-effectiveness from the perspective of the funders. 	0 to 15 points
Sustainability	<ul style="list-style-type: none"> • Has the applicant addressed future project sustainability? • For implementation projects, will the project persist and be well-maintained and not be threatened by various types of disturbance? • Has the applicant proposed a relevant and robust maintenance plan? • Has the applicant addressed the need for ongoing resources in order to maintain the value of the project even after the award period has ended? • Does the project use local materials to make projects more sustainable and cost-effective? 	0 to 15 points
Infrastructure Plan Integration	<ul style="list-style-type: none"> • Does the proposal demonstrate an effort to coordinate green infrastructure planning with other infrastructure planning? • Have the appropriate municipal agencies and partners been involved? • Does the project involve multiple departments such as Department of Transportation, Energy, Housing and Urban Development, etc.? 	0 to 15 points
Climate and Resiliency	<ul style="list-style-type: none"> • Has the project consulted other local community climate change resiliency/local hazard mitigation plans? • Does the project consider climate resiliency and flood hazard mitigation? • Does the project siting consider future water inundation areas projected by climate change? • Does the project incorporate innovative and sustainable solutions to preserve and enhance greenspace? • Are the native plants and trees selected for the project appropriate to the project location? 	0 to 10 points
Audience Need	<ul style="list-style-type: none"> • Based on applicant provided information, is the audience being engaged in the project identified as historically under-engaged or under-served through indicators such as, but not limited to, communities that were at any point historically redlined or graded as “hazardous” by the Home Owners’ loan corporation, socioeconomic status (communities in which median household income is equal to or less than 75% of state-wide median household income or have high poverty and unemployment rates (https://www.census.gov)), or other relevant characteristics as identified in the EPA EJScreen Tool (https://ejscreen.epa.gov/mapper/)? 	0 to 5 points

Demonstration Value	<ul style="list-style-type: none"> • Will this project further the understanding of stormwater management and green infrastructure in local communities? • Will others be able to take lessons from this project and perhaps replicate a similar project in their own communities? • How can this project be used as a model or pilot for future efforts of green infrastructure? 	0 to 5 points
Total Score Possible		105

There is often high demand in this competitive award program. The Trust will provide feedback from the Technical Review Committee for any application to explain the decision and improve future applications.

Eligible Applicants

Funding Partners and the Trust welcome requests from local government, non-profit organizations, and neighborhood/community associations.

If you plan to subcontract work, we require that you solicit estimates from at least three consultants or contractors. Contracts over \$250,000 must be competitively bid through an open solicitation.

By submitting an application to this program, applicants acknowledge that: 1) they are compliant with federal employment and non-discrimination laws and 2) they have not been debarred, convicted, charged or had a civil judgment rendered against them for fraud or related offense by any government agency (federal, state or local) or been terminated for cause or default by any government agency (federal, state, or local).

Eligible applicants will have and maintain in full force and effect during the term of the proposed project liability insurance coverage in connection with the performance or failure to perform services proposed.

The Trust is committed to the advancement of diversity and inclusion in its award-making and environmental work. As a result, the Trust strongly encourages applications both from underrepresented groups and for projects that increase awareness and participation of communities that are traditionally underrepresented, such as communities of color. For a full description of the Trust’s efforts to reach under-engaged groups, see our strategic plan at www.cbtrust.org/strategic-plan and <https://cbtrust.org/diversity-inclusion/>.

Funding Availability and Timeline

Funding Availability: The funding partners anticipate that over \$1.9 million is available this fiscal year.

Project Timeline: Projects must be completed within 12 months upon receipt of the award. Requests to extend project completion period will be reviewed and considered on a case-by-case basis.

Deadline

Applicants must submit applications in the **Chesapeake Bay Trust Online System** by **4:00 PM EST on March 8, 2023**. Late applications will not be accepted, and the online funding opportunity will close automatically and promptly at **4:00 PM EST**. Applicants are strongly encouraged to submit at least a few days prior to the deadline given the potential for high website traffic on the due date. The Trust cannot guarantee availability of technical assistance for our online system on the deadline date.

Application Review Process

Each application is reviewed by a technical external peer review committee, called the Technical Review Committee (TRC), composed of individuals who are experts in the fields supported by this RFP and represent communities served by projects funded by this RFP. The TRC ranks and scores all applications based on the criteria listed in the “Evaluation Criteria” section above, then meets to discuss the application merits. The TRC then recommends a suite of applications to the Trust’s Board of Trustees.

The funding partners reserve the right to fund projects and budget items that advance their missions and meet specific funding priorities and criteria.

To allow applicants to set expectations prior to investing time in application, the Trust provides historical application approval rates for the same or similar programs. The average approval rate from the last three rounds in this grant program is 51%, including both fully and partially funded applications.

Awards and Notifications

All applicants will receive a letter stating the funding partnership’s decision. An application may be declined, partially awarded, or fully awarded. If awarded, the Trust will send an award agreement with award conditions and due dates of status, progress, and final reports. The Trust will mail the first award payment to the requesting organization following: satisfaction of any phase 1 payment award contingencies, including upload of the signed award agreement. Ten percent of the total award will be held until the final report is submitted and approved. In cases where the awardee fails to submit a status report, progress report, final report, or other requirement by the due date, the Trust reserves the right to terminate the award agreement and require a refund of funds already transferred to the awardee.

When the project is complete, awardees are required to complete final reports that may include but are not limited to submission of all receipts for supplies, invoices for subcontractors/contractors, and copies of timesheets for personnel time used (timesheets must include date, name, time worked per day, and coding to tie the time worked to the award).

All financial back-up documentation will be grouped and numbered to correspond to the budget line item reported as spent. Organizations with outstanding final, progress, or status reports will not be awarded additional grants.

The FY23 Green Streets awards will be announced in June 2023.

Contact

For technical assistance contact Nguyen Le at (410) 974-2941 x 110 or nle@cbtrust.org.

Narrative Questions

You will be asked to upload a MS Word or PDF file (7-page limit, excluding material such as letters of commitment, conceptual sketches, and engineer designs) addressing the following questions in the online application. **To ensure that you address all questions, we recommend that you copy and paste the questions and use them as an outline for your narrative.**

Include any relevant information as described in the “Eligible Project Locations and Project Types” section that supports your project. Additional file attachments can be uploaded, not to exceed a total of four file attachments, in the online application.

- 1) **Project Description:**
 - a. Identify to which project track you are applying.
 - b. Describe the project and justify the need for assistance.
 - c. Describe the specific practices and strategies used.
 - d. Discuss whether the applicant or local jurisdiction has already incorporated or intends to incorporate green infrastructure practices into infrastructure projects as a standard practice.

- 2) **Describe co-benefits** (additional positive outcomes as a result of the project) to water quality improvement that the project will support (such as improving air quality and human health, increasing social capital, climate resilience, equity in access to green space, public water access, and/or native habitat improvement).

- 3) **Implementation/construction requests only** (for community greening projects some of these metrics may not apply) provide the following to describe and justify your project:
 - a. a description of how project site(s) were selected and property site ownership
 - b. a completed site plan and project design that includes:
 - i. vicinity map, including the BMP type and location and the contributing drainage area to be treated and impervious cover included in this drainage area (i.e., show us where the project is located and the drainage area) for each BMP
 - ii. site photos
 - iii. existing conditions
 - iv. planting plan (species, area, spacing) – provide a rationale for species selection (for help getting started refer to the Trust’s native plant resources https://cbtrust.org/wp-content/uploads/External_Final-Trust-Draft-Plant-Species-Selection-Guide_May2021.pdf)
 - v. proof of permit or description of permit status and timeline for permit approval and permission to proceed to implementation/construction
 - c. a maintenance plan signed by the entity responsible for maintenance and the landowner, if different
 - i. the maintenance plan should cover short-term (first growing season) and long-term (years 2 through 10); an example maintenance plan template is available at <https://cbtrust.org/wp-content/uploads/Annual-Landscape-Maintenance-Plan.docx>;
 - ii. describe the maintenance equipment owned or available to you; and
 - iii. costs for the first year of maintenance may be included in the proposal.
 - d. for projects planned on properties other than that owned by the applicant, a letter stating landowner permission;
 - e. include recent photos of at least one other implementation project completed by your organization to demonstrate that the project was completed and is being maintained appropriately;
 - f. a list of any native plants used (funding is restricted to native, non-invasive species only); and
 - g. for West Virginia sites proposing a stream restoration project ensure that your application addresses the elements in [Appendix B](#)

- 4) **Cost-effectiveness for implementation/construction projects:** If your project is a community greening or white paper/tool, skip to question 6. For all other implementation/construction projects provide the following cost information about the project.

Use the G3 Implementation Project Calculator spreadsheet to calculate the cost of green infrastructure per impervious cover area treated and fill out the table below. You can find this spreadsheet on the Green Streets Grant Program webpage at <https://cbtrust.org/grants/green-streets-green-jobs-green-towns/> or download the file directly at <https://cbtrust.org/wp-content/uploads/G3-Implementation-Project->

[Calculator-updated.xlsx](#). If your costs for the green elements are greater than \$200,000 per impervious acre treated, provide justification.

	Proposed green elements of the project	Proposed gray elements of the project (e.g., repaving, utility / pipe replacement, etc.)	Total project cost (green and gray)
Total cost			
Cost/ linear Feet (for linear green street projects)			
Cost/ impervious acre treated			
Cost/ total drainage acre			

Example of a completed table based on a 1.5-acre impervious drainage area:

	Proposed green elements of the project	Proposed gray elements of the project (e.g., repaving, utility / pipe replacement, etc.)	Total project cost (green and gray)
Total cost	\$75,000	\$52,500	\$127,500
Cost/ linear Feet (for linear green street projects)	\$50	\$35	\$85
Cost/ impervious acre treated	\$50,000	\$35,000	\$85,000
Cost/ total drainage acre	\$50,000	\$35,000	\$85,000

5) **Estimated Cost-Efficiency Strategies and Metrics:** The funding partners are interested in quantifying and improving cost efficiency of green infrastructure projects. Several ways exist to improve cost efficiency, such as: a) leveraging resources by working in tandem with already planned gray capital infrastructure projects; b) aggregating smaller “one-off” projects into a larger, concerted effort to leverage equipment, personnel, supplies, etc. that realize greater green infrastructure implementation projects and cost savings; c) designing and siting projects optimally; and/or d) using innovative technology.

- a. Explain which strategies you will use to minimize the costs of your projects.
- b. Did you consider aggregating projects to realize cost savings? Why or why not?

6) **Community Context:**

- a. Describe how this project fits into an already existing strategy, such as a watershed plan, urban tree canopy plan, or urban green infrastructure plan. How does the proposed project meet the goals of those efforts?
- b. Is the project specifically identified in an existing plan? For example, are neighboring faith-based organizations or homeowner’s associations who may already be undertaking environmental activities going to be engaged in this project?
- c. If the project is not included in an existing plan, provide justification for the selection of the project.

7) **Demographic Information:**

- a. What is the demographic information about the community or population involved in or served by the project?
- b. Describe audience need. Is the audience being engaged in the project identified as historically under-engaged or under-served through indicators such as, but not limited to, communities that were at any point historically redlined or graded as “hazardous” by the Home Owners’ loan corporation, socioeconomic status (communities in which median household income is equal to or less than 75% of state-wide median household income or have high poverty and unemployment rates (<https://www.census.gov>)), or other relevant characteristics as identified in the EPA EJScreen Tool (<https://ejscreen.epa.gov/mapper/>)?
- c. How are the population and/or the community meaningfully involved in the planning, development, and implementation of the proposed project, and in the development of this application?
- d. The Trust encourages applications directly from under-engaged communities; however, if your organization is not a member of the community served by the grant (e.g., an external non-profit doing work on land owned by another entity, such as a faith-based organization), how will “ownership” be transferred to the community and how will the ability of the community to carry the work forward be developed and resourced?
- e. What is your organization’s experience working within the specific communities that you will be prioritizing/engaging? If you have not had significant experience working with or as part of your prioritized audience, how do you intend to address this issue?

The Trust encourages applicants to establish partnerships with local organizations that may have greater cultural competencies within the targeted demographic(s). Cultural competence involves understanding and appropriately responding to the unique combination of cultural variables which entails the integrated patterns of human behavior such as language, thoughts, actions, customs, beliefs, and institutions of racial, ethnic, social, or religious groups that the community or population bring to interactions.

- 8) **Previous Experience:** Describe your organization’s experience in completing similar projects.
- 9) **Describe your plans for ultimate implementation of the project(s):** For design projects: How and when do you anticipate that it will be funded and managed? For construction projects: How, when, and from whom will match funding be secured?
- 10) **Sustainability:** The Trust aims to invest in projects that have the longest potential longevity, after the award period has ended. Several threats exist that may result in loss of project value: change in public interest in an effort, changes in rainfall or sea level associated with climate change; change in land use; and more.
 - a. Describe the future you see for the work for which you are requesting funds. What factors may affect its long-term value and how will you ensure its long-term value is maximized? If the project or program will need ongoing financial resources to maintain its value, provide an abbreviated plan describing how the project will be sustained beyond the term of the proposed funding request.
 - b. With regards to community climate change resilience, has the project consulted other local community climate change resiliency/local hazard mitigation plans? Does the project consider climate resiliency and flood hazard mitigation? Does the project siting consider future water inundation areas projected by climate change? Does the project incorporate innovative and sustainable solutions to preserve and enhance greenspace? Are the native plants and trees selected for the project appropriate to the project location? See [Appendix C](#) for additional climate and flood hazard mitigation resources.

- 11) **Regulatory Issues:** Is any element of your proposed project required as part of a development/re-development, mitigation, or enforcement action (for example, required as the result of a settlement, a specific project required as part of a permit obligation, etc.)? This grant program cannot support implementation or designs for projects required as part of new or re-development, regulatory mitigation, or regulatory offsets.
- 12) **Scope of Work and Qualifications:** Include a detailed scope of work, with specific tasks, hours associated with those tasks, and task costs to be accomplished by consultants and any internal staff (if staff time is requested). Qualifications of consultants must be included, and consultants with previous experience with green infrastructure best management practices are highly recommended.
- 13) **Contractual Work:** If hiring a contractor, applicants must either (a) have already obtained cost estimates, quotes, or bids from at least three service providers or obtained bids through a publicly advertised, competitive, open solicitation prior to completing the application or (b) indicate in the proposal that at least three estimates, quotes, or bids will be obtained or a publicly advertised, competitive, open solicitation will be used.
- a. Will contractors be used in this project? Yes or No
 - b. If yes and contractual work is >\$10K, describe how you will or have met the below criteria for contractual work as described in the list below (i through v, whichever is appropriate for your project). If contractors are expected to be retained for the proposed project, the process to select contractors for the project must be or must have been used as follows:
 - i. For work >10k and <\$250k you must either a) get three estimates and show good faith efforts to reach MBE/WBE/DBE firms or b) put the work out for competitive bid (e.g., in a RFP) and make sure you can document your good faith efforts.
 - ii. For work >\$250k you must put the work out for competitive bid and during that process make sure you did and can document you did good faith efforts to reach MBE/WBE/DBE firms.
 - iii. If the contractor/consultant has already been identified through a competitive bid process, provide a minimum of three cost estimates, quotes, or bids for the proposed work with this application, and describe the bid process used to obtain bids, including length of time the bid was open for responses, a description of the selection process/criteria used to select the winning bidder (e.g., low bidder, qualifications, criteria, etc.), and reason(s) for selection of the winning contractor (lowest qualified bid, etc.).
 - iv. If the contractor/consultant has already been identified because the contractor was already on retainer describe the competitive process used to place the contractor on retainer and how this process met the good faith efforts to reach MBE/WBE/DBE firms.
 - v. If the contractor/consultant has not already been identified, describe the competitive bid process to be used to procure consultants (including length of time the bid was open for responses, a description of the selection process/criteria used to select the winning bidder (e.g., low bidder, qualifications, criteria, etc.), and reason(s) for selection of the winning contractor (lowest qualified bid, etc.).
- 14) **Green Jobs Benefits:** What is the estimated number of personnel (or full-time equivalent) you will employ for the project for which you are requesting funds plus the personnel employed for the ultimate construction of this project? Your answer will not impact proposal score and instead will provide funding partners with information pertaining to possible green job benefits of your project. The number of green jobs should include any employee working on the project, including yourself if you will include hours for your time on the project, your organization's personnel, contractors, and/or grant/project managers. If someone is being paid using grant funding and their work is considered a "green job," they should be included in the number of green jobs you include for this question. Tasks to consider as part of this project that are "green jobs" may include the following: design, construction, project management, planting of

vegetation, project maintenance, creation and installation of interpretive signage.

15) **White Paper/Tool Proposals:**

- a. Describe how the white paper or tool will lead to better implementation of green streets or community greening projects. Describe how the information will be shared with priority audiences.
- b. Does the project need a Quality Assurance Project Plan (QAPP) (<https://www.epa.gov/quality/epa-region-3-quality-assurance-project-plans>)? If so, include this in your submission and be sure to incorporate this in your budget to accommodate this task.

16) **Green Streets Charrette/Technical Planning Assistance:** If you would like to be considered for Green Streets technical planning assistance, describe how additional support to successfully develop a robust G3 plan and/or design will help you address climate change resilience, hazard mitigation, and water quality improvements to improve quality of life in the community. Provide details on how you will commit to implementation of a project once the designs have been completed and approved. Finally, provide any other information that helps justify your need for technical assistance. Please refer to the criteria listed for this project type in the “Eligible Project Locations and Project Types” section.

Budget Instructions

Financial Management Spreadsheet – Application Budget Upload

You will be asked to upload your budget using the “Application Budget” worksheet of the Chesapeake Bay Trust’s **Financial Management Spreadsheet** (FMS), an excel file template. The template can be found by visiting <https://cbtrust.org/forms-policies/> where you can also watch a video with instructions on how to complete the FMS.

Financial Management Spreadsheet – Application Budget Information

This online application component will ask you to enter budget category and request totals. These totals will be automatically calculated in the FMS Application Budget, so you will only need to copy and paste the values from the FMS to the Online Application.

Additional Budget Justification

This online application component will ask you to provide a descriptive budget narrative to justify and explain costs. If the success of the work is contingent upon award of other funds, make this clear in your budget justification section.

Online Application Submission Instructions

The Trust uses an online system for the application process, and if awarded, project management. To apply for an award, go to <https://cbtrust.org/grants/green-streets-green-jobs-green-towns/> and click on “Get Started” to begin a new application. This will open a new window asking you to log in or create an account on our online system. If you have applied in the past, use your existing username and password (if you have forgotten either of these use the ‘forgot password’ feature). If you have not used our online system before, click on “New Applicant” and follow the instructions.

Applicants must submit applications in the **Chesapeake Bay Trust Online System** by **4:00 pm on March 8, 2023**. Late applications will not be accepted, and the online funding opportunity will close promptly at 4:00 pm.

By submitting an application to this program, applicants acknowledge that: 1) they are compliant with federal employment and non-discrimination laws and 2) they have not been debarred, convicted, charged or had a civil judgment rendered against them for fraud or related offense by any government agency (federal, state or local) or been terminated for cause or default by any government agency (federal, state, or local). In addition, all final products will be provided to the funding partners for use and distribution at the sole discretion of the funding partners.

Watch our video on how to apply for and submit an application using our online system at <https://cbtrust.org/grants/>.

Online Application Form

You will be asked to provide the following information on the online application form. Some items are required in order to submit your application. Refer to the online application for details.

- Eligibility Quiz
 - This three-question quiz is meant to assist you in determining if your project meets the requirements of this award program and that your staff/organizational structure best supports a successful application.

- Applicant Information Tab
 - Provide the organization's name, mailing address, phone number, organization type, mission, Employer Identification Number (EIN), and System for Award Management (SAM) Unique Entity Identifier (UEI) number.
 - Provide the Executive Officer and Project Leader's name, title, address, phone, and email address.
 - Both an Executive Officer and a Project Leader, two separate individuals, must be identified for all applications.
 - The Executive Officer and Project Leader must both be able to make decisions on behalf of the organization either as a board member, an employee, or other approved position recognized by the organization but not a contractor of the application.
 - The Executive Officer is the individual that oversees the organization (e.g., Executive Director, Chief Executive Officer, Mayor, President or Vice President, Principal (for schools), etc.) and has the authority to sign/execute award agreements on behalf of the organization. The Executive Officer information is tied directly to all the organization's applications and should not vary from application to application. If the Executive Officer could be listed as the Project Leader in a future proposal, we recommend listing a Board Member or other higher-ranking position of the organization as the Executive Officer in order to reduce the variation in the Executive Officer across applications.
 - The Project Leader will be responsible for all project coordination and correspondence with the Trust for the duration of the project. The email address entered here **MUST** be the same as the email address you used to log in to the online system. The Project Leader is the primary point of contact for the application, and the email address used to submit the application via the online system must be that of the Project Leader. Applications in which the email address associated with the Project Leader in the applicant information tab of the online opportunity does not match the email address used to submit the application will not be considered for funding. The Trust cannot conduct any official correspondence with contractors or other project partners. If at any time the Project Leader cannot continue in the position, the organization must contact the Trust and assign a new qualified Project Leader.

- To avoid conflict of interest issues, individuals associated with for-profit entities to be engaged in the project cannot serve in either role.
- Project Information Tab
 - Provide a project title; project track; project abstract; the watershed, county, and legislative district in which the project is located; and the latitude and longitude coordinates of the project location.
- Timeline Tab
 - Add the project start and end date. Provide a project timeline that includes major tasks and their associated start and end dates.
- Deliverables Tab
 - Provide estimated metrics for your proposed project such as project participants and outreach and restoration outcomes.
- Volunteers Tab
 - Provide a description of volunteer activities, the number of volunteers, and total number of volunteer hours.
- Project Partnerships
 - Provide a list of project partner organizations or contractors, individuals, their areas of expertise, and their role(s) in your project.
 - Applicants are encouraged to upload a Letter of Commitment for the project from each partner describing in detail the partner’s role or contribution to the project. Applications including strong Letter(s) of Commitment often receive higher scores. If not submitted with the application, Letter(s) of Commitment may be required prior to the release of any awarded funding. To better understand the Trust’s definition of and policy on Letter(s) of Commitment, visit our Forms and Policies webpage: www.cbtrust.org/forms.
- Narrative & Supporting Documents Tab
 - Upload a Microsoft Word or PDF file (7-page limit, excluding material such as letters of support and conceptual sketches, engineer designs) that contains your answers to the narrative questions found in the Narrative Questions section of this RFP. Upload additional supporting documents, if needed/required.
 - To ensure that you address all questions, we recommend that you copy and paste the questions and use them as an outline for your narrative. Additional file attachments can be uploaded, not to exceed a total of four file attachments per application. Use the additional “Upload” option in the online grant system.
- Budget Tab
 - Upload your application budget, provide budget category and request totals, and provide additional budget justification. Use the Trust’s Financial Management Spreadsheet and fill out the “Application Budget” worksheet. Refer to the Budget Instructions of this RFP.
- Terms and Conditions Tab
 - Agree to the specified terms and conditions for the program for which you are applying.

Appendix A: Project Resource Pool

In certain jurisdictions, certain resources, supplies, and services are available free of charge to awardees who receive an award as an incentive to encourage applications. This project resource pool offers supplies and materials that may be necessary to complete implementation projects and can reduce project costs being requested in the original budget request. These resources should be included in your application as match and are only available to those receiving an award. The list is not extensive and may change based on product availability. If you know of services or resources that may be added to this list, email Nguyen Le at nle@cbtrust.org.

Currently we have the following resources available for awardees in:

Washington Metro Area

DC Water produces EPA-certified 'Exceptional Quality' biosolids to be used for increasing the organic matter in soils. These biosolids are the product of an intensive and technologically advanced process that uses high heat, pressure, and biological processes to remove pathogens found in wastewater and convert carbon to digester gas. DC Water's soil amendment products meet all US EPA standards for use in home and garden projects. Class A biosolids contain no pathogens and very low levels of metals. DC Water goes beyond these standards to produce EPA-certified Exceptional Quality biosolids. The process that produces Bloom is just accelerated nature, producing clean, green, sustainable energy and a terrific soil amendment. DC Water is offering up to 15 cubic yards of Bloom Soil (<https://bloomsoil.com/>) Amendment to Green Streets awardees. There is a delivery charge of \$150 for up to 15 yards for the DC metro area. Free pickup can also be arranged directly with Bloom.

Community ToolBanks

Awardees receiving an award through the G3 Program will have access to tools and equipment for a nominal fee (3 cents on the dollar) allowing the Green Streets Grant Program funds to go to more project-based items.

The Baltimore Community ToolBank (<https://www.baltimoretoolbank.org/>) offers an impressive inventory of tools and other supplies for cents to the dollar to complete community-based projects in Baltimore City. The Baltimore Community ToolBank tools are only available to organizations whose work benefits the community.

The Richmond, VA Community ToolBank (<https://richmondtoolbank.org/>) provides year-round access to tools and equipment to not-for-profit organizations for a nominal fee, maximizing agencies' financial and human resources and empowering them to improve community engagement and to achieve greater impact for those they serve.

Appendix B: West Virginia Stream Restoration Applicant Information

The Green Streets, Green Jobs, Green Towns Award Program welcomes funding partners across the Chesapeake Bay watershed. New this year the program's West Virginia Department of Environmental Protection requests applications for green street stormwater practices including stream restoration practices. The Trust and US EPA Region III support stream restoration through other funding opportunities.

Stream health is impacted by landscape and in-stream conditions emphasizing the benefits of coordinating green street efforts with stream restoration. By funding stream restoration project designs and implementation, the funding partners aim to provide local governments and non-profit organizations the ability to quickly progress through each phase of work. The funding partners envision the products of grants funded under this opportunity will enable grantees to:

- Move designs to future implementation through the West Virginia Department of Environmental Protection, grant programs at the Chesapeake Bay Trust, or other sources of support and
- Accomplish on-the-ground restoration that will result in improvements to the health of West Virginia streams, through water quality improvement and habitat enhancement.

If your application includes stream restoration design and/or implementation in West Virginia, ensure that your application includes the following elements for consideration by reviewers:

1. Demonstrate project need, e.g., stream banks experiencing erosion, stormwater practices implemented/considered higher in the watershed draining to this site, etc.).
2. Present the alternative analysis (detail the alternative practices and/or practice types were considered at the site leading to the recommendation for the proposed practice and practice type).
3. Describe the practice type and the goals of the project to clearly link the goals to that practice type. Funding partners will consider stream restoration designs and/or implementation projects that aim reduce erosion and provide enhancements to the hydrology, habitat, vegetation, etc. while reducing impacts to existing natural resources.
4. Describe the existing conditions of the site and how the project will avoid natural resource impacts; avoidance of natural resources is required, including avoidance of trees and existing wetlands, to the maximum extent practicable.
5. Describe existing utilities at the site and detail how you determined that the project will not adversely affect public safety, infrastructure, and/or properties.
6. Describe the assessment that has or will be done for the drainage above ground and through underground pipes (if present) and avoiding utilities.
7. Use of the field's best practices per the US EPA Chesapeake Bay Program Office, WV DEP, and the Trust. Refer to the US EPA's Expert Panel reports and budget for any required additional calculations, sampling, and modeling that will be completed during the design phase that are available at: <http://chesapeakestormwater.net/bmp-resources/urban-stream-restoration/>. The Trust highly recommends applicants interested in stream restoration practices review and be familiar with the most recent science to make informed decisions on site selection and technique. Research gathered through the Pooled Monitoring Initiative's Restoration Research Program focused on stream restoration has been shared on the Trust's website (<https://cbtrust.org/grants/restoration-research/> - found under the "Additional Information", "Awarded Projects and Final Products" tab). Particularly, applicants may find final products from the following projects of relevance:
 - a. Evaluating the Effectiveness and Sustainability of Novel Stream Restoration Designs for Coastal Plain Streams in Maryland: Integrating Existing and New Data from Stream Restoration Monitoring, University of Maryland Center for Environmental Science, Dr. Solange Filoso
 - b. Tree Trade-Offs in Stream Restoration Projects: Impact on Riparian Groundwater Quality,

- University of Maryland College Park, Dr. Sujay Kaushal
- c. Quantifying the ecological uplift and effectiveness of differing stream restoration approaches in Maryland, University of Maryland Center for Environmental Science, Dr. Robert Hilderbrand
 - d. Determining realistic expectations for ecological uplift in urban stream restorations, University of Maryland Center for Environmental Science, Dr. Robert Hilderbrand
 - e. Evaluating the Performance of Regenerative Stormwater Conveyances in Urban Versus Rural Watersheds, Smithsonian Institution, Dr. Thomas Jordan
 - f. Improving Success of Stream Restoration Practices – Revised and Expanded, Virginia Polytechnic Institute and State University, Dr. Theresa Thompson
 - g. Determining the effects of legacy sediment removal and floodplain reconnection on ecosystem function and nutrient export, Towson University, Dr. Vanessa Beauchamp
 - h. Quantifying the cumulative effects of stream restoration and environmental site design on nitrate loads in nested urban watersheds using a high-frequency sensor network, University of Maryland Baltimore County, Dr. Claire Welty
 - i. Climate Impacts to Restoration Practices, Tetra Tech, Inc., Dr. Jon Butcher
 - j. Impacts of Regenerative Stormwater Conveyance on Iron in Restored Streams and Potential Effects on Aquatic Organisms, EA Engineering, Science, and Technology, Inc., PBC, Dr. Jamie Suski
 - k. Vertebrate Community Response to Regenerative Stream Conveyance (RSC) Restoration as a Resource Trade-Off, Tetra Tech, Inc., Dr. Mark Southerland
8. Describe the experience with similar projects for the team proposing to do this work. Designs shall be done by licensed/registered professionals.
 9. Detail how materials will be delivered to the site, where materials will be stored, and how construction equipment will be safely managed during the project.
 10. Describe your ability to proceed through the permit and construction process:
 - a. The output of a design award must be permittable by the West Virginia Department of Environmental Protection, U.S. Army Corp of Engineers, and all other appropriate local, state, and federal entities.
 - b. Applicants are strongly encouraged to contact the appropriate department at WVDEP during the conceptual design phase and make an appointment to discuss their project with the permit reviewers. Appropriate departments can be identified through WVDEP permitting webpages:
 - i. <https://dep.wv.gov/Permits/Pages/default.aspx> and
 - ii. <https://dep.wv.gov/WWE/Programs/nonptsources/streamdisturbance/Pages/default.aspx>
 11. Describe proposed maintenance and long-term sustainability of the project. Designs will be evaluated to ensure that completed projects are self-sustaining and will not require continuous manipulation for future project sustainability. If stream restoration implementation is being proposed, describe how the project will persist and be well-maintained in the future (and not threatened by various types of disturbance), including addressing any ongoing resources needed to maintain the value of the project.
 12. Provide the following metrics for your project: linear feet to be designed, drainage area treated/planned (acres), impervious acre treated, estimated load reductions (lbs. of N, P, and S reduced), and estimated cost of design (\$).
 13. Justify the cost-effectiveness of the project. Provide assurances that the best price was provided (e.g., were multiple estimates/quotes obtained for contractors) and is reflective of current, market prices/values. The table below provides dollar ranges in which approximately 75% of proposals in the past two rounds of the Trust’s Watershed Assistance Grant Program were funded.

Practice Type	Linear Feet to be Designed	Impervious acre treated	Lb N Reduced	Lb P Reduced	Lb S Reduced
Stream Restoration	\$26 to \$80 per ft	\$4 to \$4,700 per acre	\$37 to \$550 per Lb	\$85 to \$800 per Lb	\$4.50 to \$2,000 per Lb

Appendix C: Additional Resources

These additional resources can support your application and project.

1. Avoiding and Minimizing Risk of Flood Damage to State Assets:
<http://www.dnrec.delaware.gov/energy/Documents/DE%20Flood%20Avoidance%20Guide%20For%20State%20Agencies.pdf>
2. Baltimore City Green Network Plan (preferred areas for Baltimore City projects):
<http://www.baltimoresustainability.org/projects/green-network/>
3. Chesapeake Bay Trust Additional Resources Page, specifically the “Restoration,” Signage,” and Maintenance” categories: <https://cbtrust.org/additional-resources/>
4. Chesapeake Bay Trust Green Streets Grants page and example Green Streets Grant projects:
<https://cbtrust.org/grants/green-streets-green-jobs-green-towns>
5. Chesapeake Bay Resources for Native Plants: https://cbtrust.org/wp-content/uploads/External_Final_Trust-Draft-Plant-Species-Selection-Guide- Oct2021.pdf
6. Climate Impacts to Restoration Practices (supported through the [Pooled Monitoring Program](#)):
https://cbtrust.org/wp-content/uploads/Grant16928-Deliverable11-FinalProjectReport_120820.pdf
7. Example Green Street Charrette and Concept Design Report for Huntington, West Virginia:
<https://www.epa.gov/green-infrastructure/green-street-charrette-and-concept-design-report-huntington-west-virginia>
8. Minority and Disadvantaged Business Enterprises (MBE/DBEs) for each state:
<https://www.transportation.gov/content/office-small-and-disadvantaged-business-utilization>
9. NOAA Sea Level Rise Viewer: <https://coast.noaa.gov/digitalcoast/tools/slr.html>
10. NRCS Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>
11. Piloting the Development of Probabilistic Intensity Duration Frequency (IDF) Curves for the Chesapeake Bay Watershed (supported through the [US EPA Goal Implementation Team program](#)):
<https://www.rand.org/pubs/tools/TLA1365-1.html>
12. Presentations and handouts from the Green Streets Forum held November 6, 2019:
<http://g3forum.tetrattech.com/>
13. US EPA Climate Change Adaptation Resource Center: [https://www.epa.gov/arc-x#:~:text=EPA%27s%20Adaptation%20Resource%20Center%20\(ARC,tailored%20specifically%20to%20their%20needs](https://www.epa.gov/arc-x#:~:text=EPA%27s%20Adaptation%20Resource%20Center%20(ARC,tailored%20specifically%20to%20their%20needs)
14. US EPA Community Based Public Private Partnership Guide:
<https://www.epa.gov/waterfinancecenter/community-based-public-private-partnerships>
15. US EPA Environmental Justice Screening and Mapping Tool: <https://www.epa.gov/ejscreen>
16. US EPA Green Street, Green Jobs, Green Towns website: <https://www.epa.gov/G3>
17. US EPA Storm Smart Cities: Integrating Green Infrastructure into Local Hazard Mitigation Plans:
<https://www.epa.gov/G3/storm-smart-cities-integrating-green-infrastructure-local-hazard-mitigation-plans>
18. US EPA Storm Smart Schools Guide: <https://www.epa.gov/G3/storm-smart-schools-guide-integrate-green-stormwater-infrastructure-meet-regulatory-compliance>