



# Blue-Green-Grey Round 4 Application for New Ideas

Pre-Application Workshop | July 17, 2024

*Hatcher Station Community Garden, BGG Round 2 Award (2018)  
Image courtesy of DART*

# Today's Agenda

1. Overview of Blue-Green-Grey
2. Previously funded projects
3. Application submittal requirements
4. Project considerations
5. Scoring criteria
6. Evaluation Process
7. Schedule
8. Q&A



Southlake BioPod Burney Lane Reconstruction BGG Round 1 Award (2017)  
Images courtesy of City of Southlake

**Thinking Small: Solving Big Flooding Issues with Micro-Detention**  
 Authors: Allison Wood, PE, CFM; Lacy Rhoades, EIT; Rob Armstrong, PE, CFM

**Why?**

- Through the North Central Texas Council of Governments (NCTCOG) Blue-Green-Grey grant, an innovative solution to provide micro-detention for small mill projects was developed that decreases peak discharges and improves water quality. The Blue-Green-Grey grant is awarded to towns sponsored by governmental entities to develop innovative solutions that focus on water, environment, and transportation infrastructure.
- Many older neighborhoods may experience urban flooding due to aging and undersized storm drain systems. The City of University Park experiences nuisance flooding as frequent as the 7-year storm event due to the limited inflow capacity of the storm drain system. With the City experiencing frequent redevelopment, the aggregate impact of small mill projects can pose a problem regarding increased runoff without increased storm drain capacity.
- The micro-detention storage system (MDS) was designed to capture stormwater runoff produced by the impervious area added during redevelopment for the 10-year storm event. Runoff is diverted from driveways, roof drains, and sidewalks to a permeable strip running parallel to the pavement, feeding into an underground gravel bed detention area. Runoff will be detained in the gravel bed and slowly released to the existing storm drain system. Water quality benefits will be obtained through filtration and sedimentation as well as toxic seepage which result in removal of metals.

**Next Steps**

- The City of University Park plans to adopt the details and specifications created and implement the system across the city, as well as incorporate it into city ordinances to be used for redevelopment. The next step will be pilot testing. These details can be applied to driveways, sidewalks, parking areas, etc. The micro-detention storage system is a great tool that can be used in any area looking to mitigate peak runoff from smaller storm events and improve water quality.

**Design**

- The proposed MDS is adaptable and suitable for various locations like the underneath public, residential and commercial building driveways, sidewalks, or parking areas.
- Depending on the length of the system, one or multiple gravel detention chambers may be implemented to utilize the maximum storage volume for the runoff.
- The stormwater runoff runs through the White Quality Filtration Media, composed of gypsum, dolomite, perlite, and crushed stone, which will remove metals and nutrients common with roadway runoff.

**Plan**

A roof drain can also be connected to the system to increase mitigation of driveway runoff.

The MDS has an outlet structure that connects to the storm drain system and slowly releases the detained runoff.

**Profile**

The size of the system will vary at every location, therefore, a representative but non-developed system that the desired amount of runoff will be captured for each area.

The filter strip will be placed next to the driveway. The detention chamber and underdrain extend under the driveway, maintaining detention storage, and follow the driveway slope.

**XS CROSS SECTION A-A**

The decorative stone will aid in limiting the wear of the filtration layer. It also allows the system to be aesthetically pleasing to each resident who implements it.

A utility underdrain reduces the detained runoff from the chamber of a detention.

University Park Micro-detention System for Driveways BGG Round 1 Award (2017)  
Image courtesy of Huitt-Zollars



# Application for New Ideas

Funding: \$250,000 total; no local match required

Anticipated awards: ~3

Call opened: July 15, 2024

Call closes: **August 16, 2024 at 5 PM**



# Purpose of Initiative

The purpose of the Blue-Green-Grey (BGG) program is to promote the planning and construction of green or sustainable infrastructure in the region.

Advance small projects with innovative outcomes that can be scaled and/or replicated regionally

Focus on three elements:

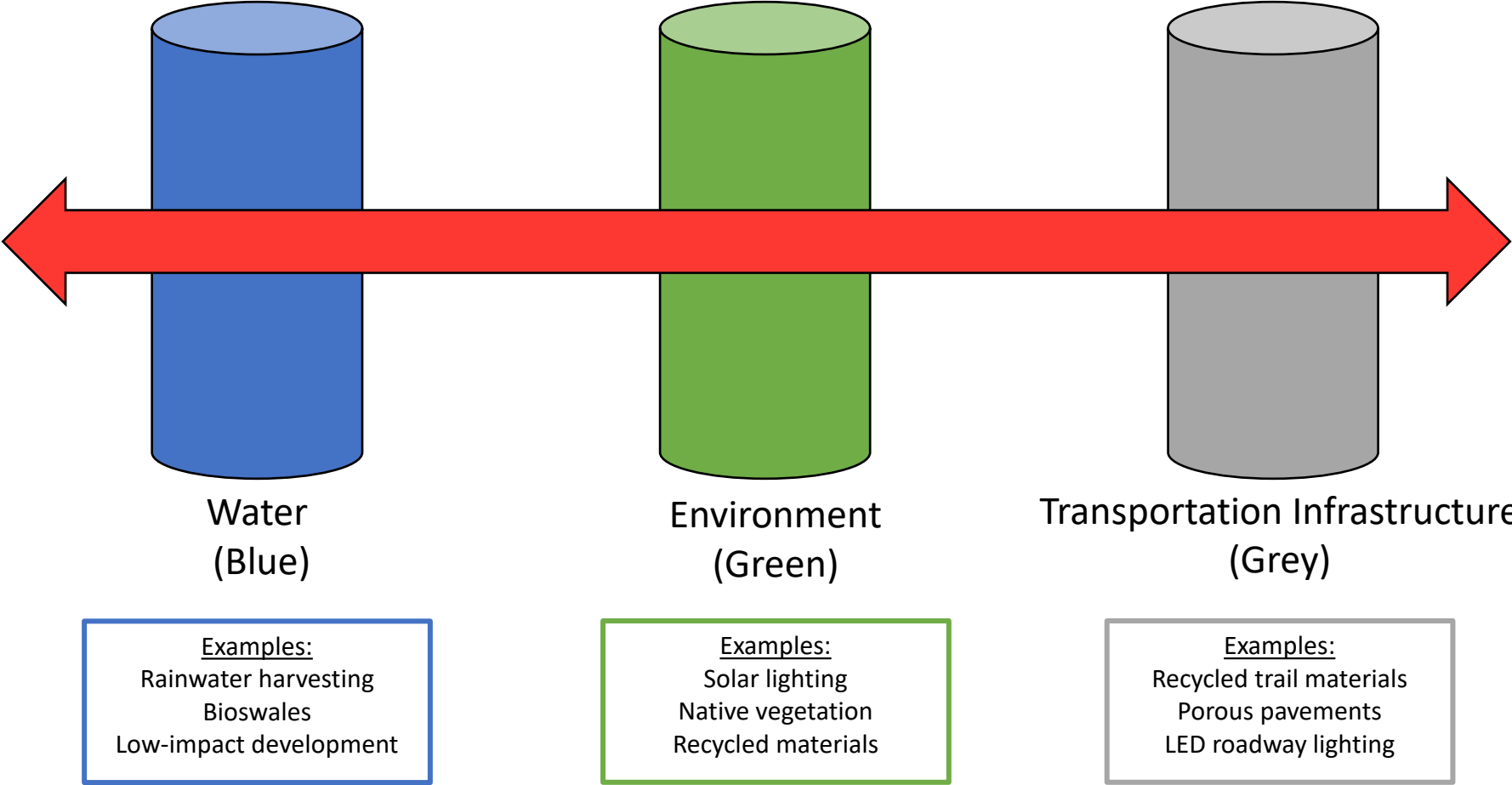
Blue – Water

Green –  
Infrastructure

Grey –  
Transportation  
Infrastructure



# Silo Busting Projects



# Previously Funded Projects

## Funding Years

**2017**

Farmers Branch  
Conceptual Bus  
Stop Designs

Southlake BioPod –  
Burney Lane  
Reconstruction

University Park  
Micro-Detention  
Project

**2018**

DART Hatcher  
Station Community  
Garden Pilot  
Program

Bishop Arts Bicycle  
Parking Retrofitting  
Pilot

Watauga  
Biofiltration System

**2021**

City of Allen Inlet  
Floatables Filter

City of Dallas Bottom  
District Green  
Neighborhood  
Design Guidelines

University of  
Arlington  
Biofiltration Swales  
Testing

Project reports can be found here: [www.nctcog.org/greeninfrastructure](http://www.nctcog.org/greeninfrastructure)

# Previous Funding Rounds

Funding awarded to date:

FY 18: \$109,170

FY 19: \$138,500

FY 20: \$201,410



*Bishop Arts Green Bicycle Parking  
BGG Round 2 Award (2018)*

*Image courtesy of Amanda Popken Design*



# Project Examples

Projects may be either a feasibility assessment and/or planning for a Blue-Green Grey project

**OR**

Project is ready for construction/implementation

Project deliverables may look like:

- Guidelines for a pilot construction project that other entities can use
- Various test sites for a specific project
- Development/feasibility assessment of new technology or processes that could be integrated into any project
- Planning document outlining potential solutions

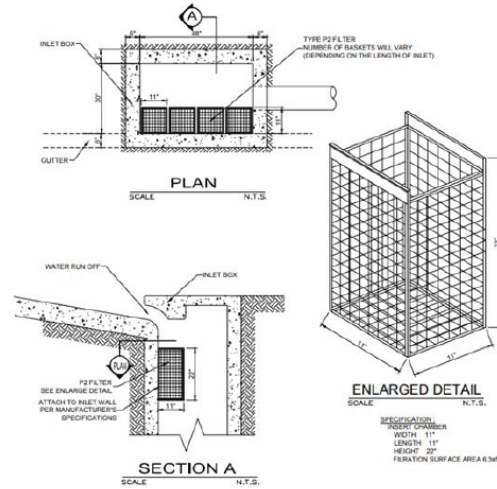




# Examples of Previously Awarded Projects – 2021

## City of Allen Inlet Floatables Filter

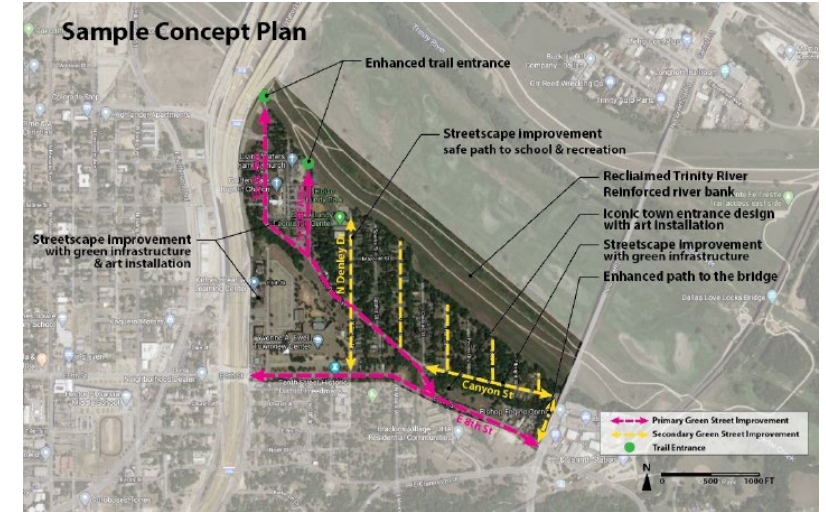
Develop modified inlet design for the collection and removal of debris and floatable during active construction



P-2 INLET FILTERS AFTER PAVEMENT CONSTRUCTION  
*City of Allen Floatables Filter*

## City of Dallas Bottom District Green Neighborhood Design Guidelines

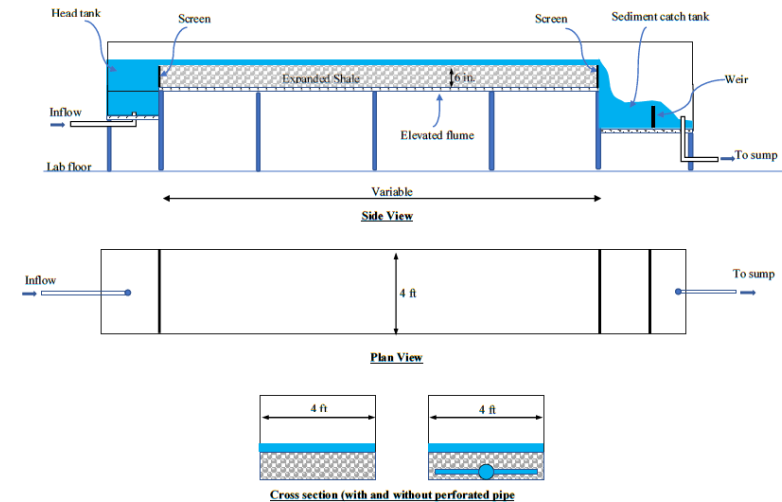
Establish a green infrastructure network development plan in the Bottom District neighborhood in Dallas



*Bottom District Neighborhood Beautification*

## UTA Laboratory Testing of Engineered Media for Biofiltration Swales

Install and test an expanded shale engineered filtration media in a controlled lab



Schematic of Experimental Setup

*UTA Biofiltration Swales Lab Test*



# Project Considerations

- Who will the project partners be?
- Are the project partners on board and involved with the project proposal development?
- What will the roles of the project partners and other team members be?
- How can the project be replicated in the region?
- Who will be responsible for long-term maintenance and operations? Has a maintenance agreement been discussed?
- What is the project timeline? When are project activities anticipated to begin?



*Farmers Branch Green Bus Stop Designs BGG Round 1 Award (2017)  
Images courtesy of City of Farmers Branch*



*UTA Engineered Media for Biofiltration Swales BGG Round 3 Award (2021)  
Image courtesy of University of Texas-Arlington*



# Program Rules & Other Considerations

- Projects or programs must be located on public land or in the public right-of-way within the 12-county Metropolitan Planning Area.
- Funding is reimbursement only.
- Typically, about six months is required after the award before funds may be accessed, to allow for processing and contract development.
- Work started before a project contract is executed is not eligible for reimbursement.
- NCTCOG reserves the right to remove funding on work that is completed prior to contract execution.
- Any procurement that occurs after project award must comply with NCTCOG and state procurement requirements.



# Project Considerations (Cont.)

- Is the project innovative?

## Innovative Submittals (new, not previously tested, combining new elements, etc.)

- A new water recapture system and treatment on a bridge over a stream in a natural area
- A new type of porous pavement that serves as a water reclamation and filter system to use on trails and parking lots in the park system

## Noninnovative Submittals (conventional, standard treatments and approaches, etc.)

- Construction of trail or sidewalk
- Funding for lighting in a neighborhood
- Purchase of trees for conservation or wetlands protection



# Application Submittals

Required submittal materials available at

[www.nctcog.org/greeninfrastructure](http://www.nctcog.org/greeninfrastructure) → Blue-Green-Grey Funding Program

Eligible applicants include: universities, cities, counties, transit authorities, private firms, non-profits, school districts, individuals

Project or program must be located on public land or in the **public right-of-way** and within the 12-county Metropolitan Planning Area

Applicants may submit more than one funding application

**Hard copy applications and electronic version on USB are due in hand by 5:00 PM Central Time on August 16, 2024.**



# Submittal Requirements

Answer all questions in funding application completely.

## Required attachments:

- Budget using template provided on website
- Project map, if applicable
- Resume for each team member
- Concurrence letter signed by department head required when applicant partners with public sector organization
- Documentation of coordination with project site owner, where relevant

Other supporting documentation may also be attached.



# Application Content

1. General project information and point of contact
2. Project team description
3. Description of the project, program, or idea
4. Implementing organization information
5. Funding request
6. Budget

See application for details

## Budget - [insert project name]

### SUMMARY

Activity	Amount
What is the total cost of the project?	\$0
How much funding is requested in this application?	\$0
How much funding has already been spent on this project (if any)?	\$0
If any, what is the amount of additional funding to be contributed to this project? (This should be above and beyond the amount of the application)?	\$0
If any, what is the amount of additional funding <b>to be sought</b> through a <b>future</b> grant application to another Federal, State, or local agency?	\$0
<b>STOP HERE! Rows Below Automatically Calculate Based on Information Above</b>	
Total Funds Requested (Automatically Calculated)	\$0
Total Amount of Funding for Project (Automatically Calculated)	\$0
Total Amount of Funding to be Leveraged (Automatically Calculated)	\$0



# Selection Criteria

## Team Qualifications (10 points)

- Does the proposed team have the correct mix of experience and expertise?

## Impact (20 points)

- Would the project have a long-term effect?
- Does the project have the potential to change future designs?
- Does the project include an educational component?
- Does the project incorporate native vegetation?

## Innovation/Significance (25 points)

- Does this project shift current designs or practices by using new or uncommon approaches, design, or methodologies?
- How well does the project include the three elements (water, environment, and transportation infrastructure)?
- Does the project address an important problem or challenge?





# Selection Criteria (Cont.)

Applicability, Adaptability,  
Transferability, and Practicality  
(30 points)

- Could the project be used in other communities or settings?
- Is the project realistic?
- Is the project consistent with eligible funding programs and Regional Transportation Council objectives?

Collaboration with Various  
Stakeholders  
(15 points)

- Does the project collaborate with any outside entities?
- Does the project show evidence of buy-in from project partners?

Other Considerations (not  
formally scored)

- Equity
- Geographic distribution
- Diversity of disciplines



# Round 4 Schedule

Call for Applications Open (materials available online)	July 15, 2024
<b>Pre-application Workshop</b>	<b>July 17, 2024</b>
Applicants submit questions for FAQ	July 15, 2024 – August 1, 2024
NCTCOG staff available to meet for preliminary application review	July 15, 2024 – August 1, 2024
<b>Applications Due</b>	<b>August 16, 2024 @ 5 pm</b>
Application Review and Scoring	September 2024
Recommended Projects Presented to STTC and RTC	October/November 2024
Announce Awarded Projects	December 2024



# Q&A



# Contact Us



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