Funding Stormwater in Low-Income Communities

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STORMWATER FUNDING EQUITY ROUNDTABLE

APRIL 29-30, 2021

Stormwater Authority of the City of Chester Partnership Program

Community-Based
Public-Private
Partnership (CBP3)

GENESIS OF THE STORMWATER AUTHORITY OF CHESTER

The Stormwater Authority of Chester, established by City Ordinance No. 17, is the first stormwater authority created pursuant to the Pennsylvania Municipalities Authorities Act.

Dr. Horace Strand appointed as Executive Director by the city to establish the SAC and lead the implementation of its Vision.

- ✓ Dr. Horace Strand has worked closely with EPA Region 3 to develop a Community-Based Public Private Partnership to achieve stormwater utility implementation, including large-scale green infrastructure and long term sustainability of the City's goals and objectives.
- ✓ The Stormwater Authority of Chester worked with the City and other partners such as the EPA Region 3 Water Division to transition the stormwater program from the City to the Stormwater Authority of Chester.

What IS a CBP3?

- A new program/projects alternative procurement & delivery model, based upon aspects of the traditional P3 approach – but driven by community needs and values
- A true, long-term PERFORMANCE PARTNERSHIP between public and private (or NGO) parties
- An approach that:
  - Seeks to **drive down costs** of "green stormwater infrastructure" (GSI) **implementation** and **maintenance,** while providing for **multiple benefits to the community**
  - **Accelerate** the pace of implementation
  - Provide potential for **high-value investments** (as opposed to the cheapest/least-cost option), while ensuring for **quality and affordability.**
  - Stresses Triple Bottom Line Results – **economic, social and environmental benefits**

What a CBP3 is NOT?

- A traditional P3 framework
- Privatization
- A “one-size-fits-all approach w
  limited benefits for the
  community.

Considerations of Community-Based Partnerships for Water Infrastructure

Communities should consider the use of a CBP3 structure for:

- ***Technically complex projects and integrated infrastructure requirements or goals, where scale and maintenance are equally important.***
- ***Projects that bring value to the community.***
- ***Unlocking "hidden" community assets – e.g. land, easements – to achieve water quality and other KPIs.***
- ***Situations where expedited delivery is essential.***
- ***Situations where dedicated revenues are available, however cost mitigation and reduction are essential for project delivery, financing, and maintenance. CBP3s can achieve 30-40%+ savings.***
- ***Areas where sustainable local jobs creation, small business growth and equitable wealth building are highly desired.***

Community Based P3 Model (30-40% more efficient than standard approaches for large-scale GI)

Municipality/Public Entity

Ownership and Control retained by the public partner

Private or NGO Entity

Provides surety of execution and Adopts shared goals managed through performance metrics

Integrated program services that lowers delivery costs and incentives private sector delivery to be outcome based

CBP3 Entity

Focus on lower procurement barriers and procuring local disadvantaged businesses and jobs

Performance-Driven Contract

Design/Build → Operate/Maintain

Note that a typical procurement contract can be employed to create a CBP3 performance-based contract.

Traditional P3 Advantages

- Reduced project costs
- Project delivery time
- Transfer of risk
- Long term O&M
- Shared economic and social goals
- Alternative financing

Additional CBP3 Advantages

- Community is priority
- Mixed public/private financing can reduce financing costs, particularly with use of SRF/Guarantee
- Municipality has high degree of control/input
- Reinvestment into project
- Aligned interests
- Fixed-fee; Performance goals

Setting Community-Based KPIs, Enabling the Best of What Public, Private, and Other Partners Have to Offer to Achieve Measureable Outcomes/ Performance

CBP3 is Customizable…

- **Drivers**
  - MS4
  - CSO / SSO
  - TMDL
  - Non-Regulatory
    - Flooding
    - Local Economic and Social Needs
- **Infrastructure Goals**
  - Expand the scale of infrastructure investment
  - Increase pace of project delivery
  - Reduce capital and O&M costs
  - Expand investment in high-performance and high-value infrastructure
  - Reduce risks
- **Community Goals**
  - Workforce development
  - Job/small business creation
  - Economic revitalization
  - Sustainability metrics/goals
  - Enhanced resiliency
  - Affordable housing stock
- **Funding/Financing**
  - Public sources
  - Private sources
  - "Blended" mix of both
  - Innovative

nmsa National Municipal Stormwater Alliance

P3 Public Private Partnerships

CBP3 Center of Excellence

CBP3 Program Progress

- Environmental
  - Over 2,000 impervious acres managed with integrated GSI
- Economic
  - $600M invested in integrated GSI via CBP3 programs
    - Over $100M in SRF assistance – advocated as funding of choice (if possible)
- Social
  - Socioeconomic targets met or exceeded consistently
    - Local resident workforce support
    - Local small, MBE businesses
    - Mentor-Protégé programs
- Scale
  - National in scope

CBP3 Program Progress

Stormwater Authority of Chester, PA

Community-Based Public Private Partnership (CBP3) for Largescale Green Infrastructure

KEY PERFORMANCE INDICATORS & OUTCOMES

- $50+Million Green Stormwater Infrastructure Redevelopment; Phase II MS4 Permit
- Expedited Establishment of Stormwater Utility Through CBP3 Special Purpose Entity -Partner
- Retrofit 350 Impervious Acres; Target is Significantly Beyond Compliance; Addresses Localized Flooding, Area CSOs, Heavy Trash & Debris, Green Streets, and Park Improvements
- Payment Incentives for Accelerated Achievement of Target Outcomes
- $ 24+ Million in Operations & Maintenance Spending
- Triple Bottom Line CBP3 RFP with Community-Based KPI's & 30-year contract
- Socio-economic Impacts –Small Business & Local Jobs Growth for Small, Minority, Local Businesses and Residents - $ 149+ Million
- Diverse, Inclusive Community Outreach & Engagement to Deliver Multiple GI & Other Benefits
- 4 Local General Contractors -Each Awarded a $1M + Contract to Start
- 34% Local Resident Participation vs. Goal of 15%

THE VISION FOR THE CITY OF CHESTER

The City of Chester (the "City") established the SAC to:

- **"Protect"** the City & Delaware County's water bodies and groundwater and to safeguard the public health, safety and welfare of the residents of the City.
- **"Take The Lead"** to address stormwater-related issues through planning, management, and implementation of stormwater controls.
- **"Build Sustainable Community"** through community outreach and implementation of the City's Vision 2020 Climate Adaptation Plan to Increase Resiliency and Reduce Flooding
- **"Reduce Pollution"** into its waterways through the implementation of large-scale Green Stormwater Infrastructure
- **"Create Economic Impact"** that will contribute to the revitalization of the City through creating local job and contracting opportunities

COMMUNITY BASED PUBLIC-PRIVATE PARTNERSHIP (CBP3)

- **Solicitation**
  - ✓ September 2016: Request for qualifications & proposals (RFQ/P) for establishing a CBP3 for the Stormwater Authority of the City of Chester, PA issued
  - ✓ November 2016: Evaluations of proposals submitted in response to the RFP/Q completed (Corvias selected as primary, prospective partner)
  - ✓ January 2017: Award
- **Community Based Public-Private Partnership**
  - ✓ Under a partnership approach, Corvias and the Stormwater Authority of Chester entered into a 30 year partnership to improve the stormwater infrastructure and make a commitment to impact the local economy with the following key transitions from prior approaches
    - ✓ Private Sector Involvement
    - ✓ Social Value Creation
    - ✓ Long Term Sustainability
    - ✓ Site Flexibility

HOW CBP3'S WORK

Cost Savings and Project Acceleration

- ✓Gain economies of scale to reduce costs and accelerate delivery
- ✓Long-term operations and maintenance plan ensuring sustainable infrastructure program

Anticipated Community Benefits

- ✓Improvement of quality of life through opportunities for local small businesses and Chester residents
- ✓Increased affordability through innovation and standardization
- ✓New revenue source for Chester
- ✓Strategic land development benefiting the environment and beautification of the City that has been proven to reduce crime

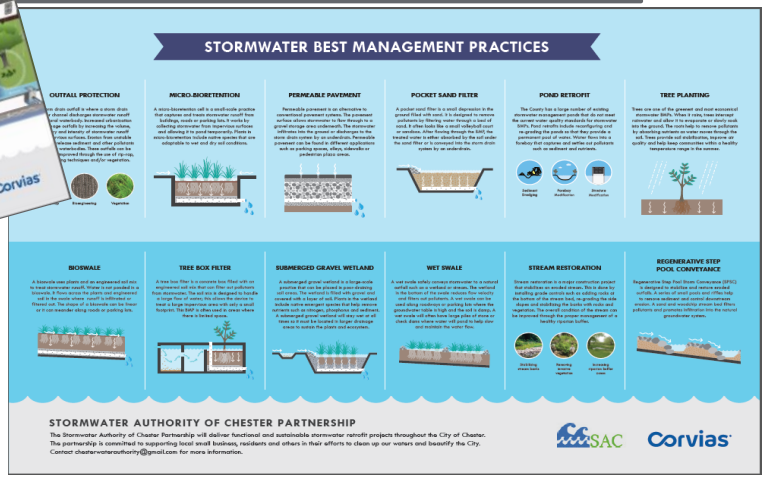
PARTNERSHIP GOAL

To make strategic and impactful investments in the City of Chester's stormwater infrastructure that will:

- Revitalize the community and create low barrier to entry jobs and economic growth opportunities for Chester residents and businesses
- Increase property values and promote development opportunities in key community corridors
- Provide public education and outreach opportunities around water quality and more sustainable development and preservation
- Comply with Federal and State Clean Water regulatory compliance requirements as outlined in the City's MS4 permit

MEETING THE GOALS AND NEEDS OF THE COMMUNITY THROUGH OUTREACH AND EDUCATION

- Direct mailings to Property Owners
- Social Media Outreach & Promotion
- Community Meetings
- Educational Materials



SAC Corvias

PROJECT AND GREEN INFRASTRUCTURE FEASIBILITY EVALUATION

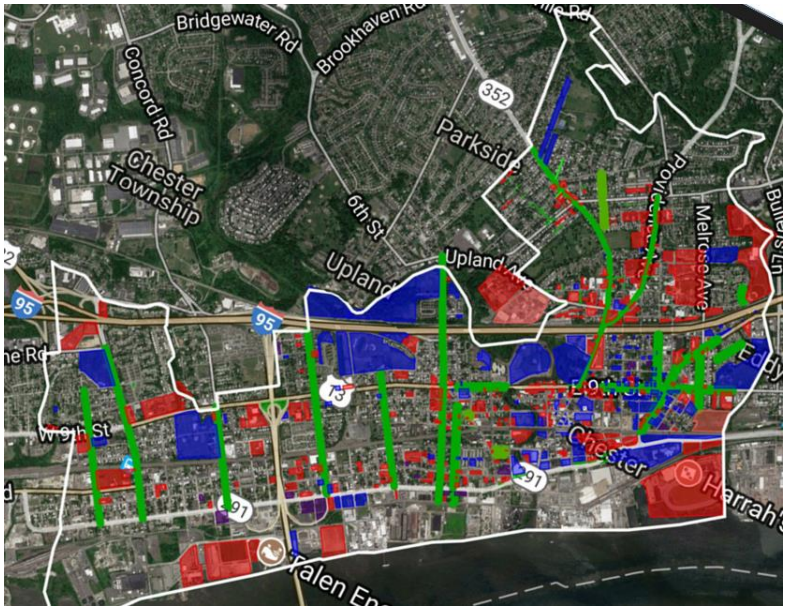
The purpose of these evaluations were to identify sites with the greatest potential to meet the program goals of:

- Revitalizing the community
- Creating jobs and economic growth
- Increasing property values
- Improving public health and safety
- Improving water quality
- Mitigating Surface Flooding
- Providing Recreational Facilities
- Creating Community Partnerships
- Providing Public Education Opportunities
- Preserving Historic Landmarks

SITE SCREENING

400 sites were reviewed and 26 sites with the greatest potential to meet program goals were selected.

The following criteria were used to prioritize the sites:



Significantly large impervious area. Managing these areas will aid in addressing flooding and water quality concerns.

Largest publicly-owned open spaces. Public property will likely require less time to implement related to real estate coordination or acquisition.

Largest private parcels owned by private partners identified in the *Green Stormwater Infrastructure Plan*. These private partners may have a pre-existing relationship with the City which allow for a more efficient implementation.

Highest potential for economic growth, community revitalization, recreational facilities, public education, and community partnerships. These reflect the overall program goals and could provide the greatest benefits to residents and local businesses.

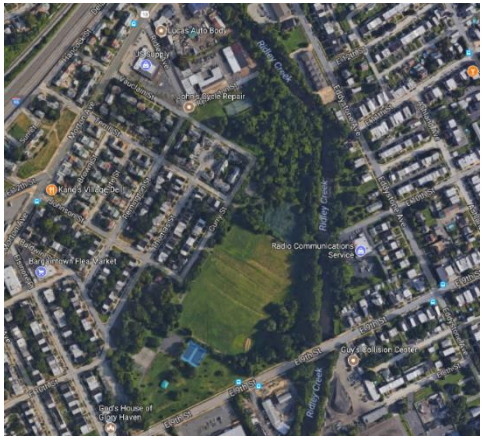
OPPORTUNITY "PROJECT" EVALUATION

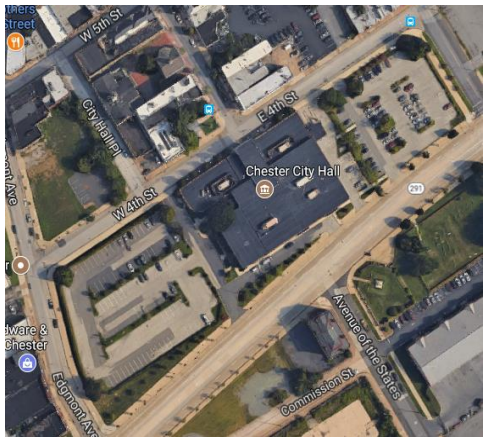
To evaluate and rank the sites identified, a spreadsheet tool was developed for scoring various criteria from four primary categories:

Weight: 40%	Program Goals
• Water Quality Improvements (CSO Reduction or MS4 Control Measure) • Flooding Mitigation • Revitalization of Depressed Areas (Social Justice) • Revitalization of Central Business District (CBD) and Public Spaces • Recreation and Education Opportunities	
Weight: 25%	**Community Benefits**
• Public Use and Access • Community Impact of Amenity • Catalyst for New Business and Commerce • Community Partnerships • Environmental Improvements (Greening)	
Weight: 20%	**Project Feasibility**
• Design Complexity • Constructability • Utility Conflicts / Site Constraints (Visual Assessment) • Environmental Remediation (Proximity to Environmental Risk Sites) • O&M Implementation	
Weight: 15%	**Site Suitability**
• Available Land for GI Practices • Tributary Size • Impervious Area Managed • Public Safety • Accessibility for Construction and O&M	

TOP 26 GREEN INFRASTRUCTURE SITES

	Category Scores				
	Program Goals	Community Benefits	Project Feasibilty	Site Suitability	Total
Project	40.0	25.0	20.0	15.0	100.0
Sun Village Park	32.0	21.0	16.8	12.3	**82.1**
City Hall	29.6	22.5	14.8	13.2	**80.1**
Triangle Park	29.6	21.0	16.4	12.9	**79.9**
Edgmont Complete Street	33.6	19.0	13.2	13.8	**79.6**
Veterans Memorial Park	27.2	20.0	17.6	14.4	**79.2**
PA 291 Gateway Feature/Complete Street	32.8	20.5	12.0	13.8	**79.1**
Recreational Park	30.4	19.0	16.8	12.8	**79.0**
Kerlin Complete Street	32.8	19.0	12.8	14.1	**78.7**
Chester High School & Eyre Park	30.4	19.0	16.4	12.6	**78.4**
Widener University Campus	30.4	19.0	15.2	13.5	**78.1**
Washington Park	31.4	20.0	12.8	13.5	**77.7**
Talen Stadium & Surrounds	33.6	20.0	10.8	12.9	**77.3**
Chester Park	28.0	19.5	16.0	13.5	**77.0**
Providence Complete Street	30.4	19.0	13.2	14.1	**76.7**
Educational Park (CSO 22 Outfall)	30.4	19.5	17.2	9.4	**76.5**
E 8th and Potter Intersection & Corner Parks	28.0	20.5	14.0	13.8	**76.3**
Pulaski Memorial Park	30.4	19.5	15.6	10.2	**75.7**
E 9th and Morton Intersection	31.2	19.0	14.0	11.3	**75.5**
Lloyd Complete Street & Pocket Park	26.4	19.5	13.2	13.8	**72.9**
Chester Community Charter School	28.8	16.5	13.6	12.6	**71.5**
Parker Manor	28.8	13.5	15.2	13.2	**70.7**
Showalter STEM High School	25.6	18.0	14.4	12.3	**70.3**
SAC/DELCORA/Charter School Parking Lots	24.0	16.5	14.4	14.4	**69.3**
Crozer Medical Center	26.4	17.0	10.8	11.4	**65.6**
E 7th & Chester PD Parking Lots	23.2	13.0	15.2	12.9	**64.3**
Crozer Street Bioswales	16.8	15.5	14.4	14.4	**61.1**





The **top 10** sites for green infrastructure projects in Chester have been identified and presented to the different stakeholders within the city.

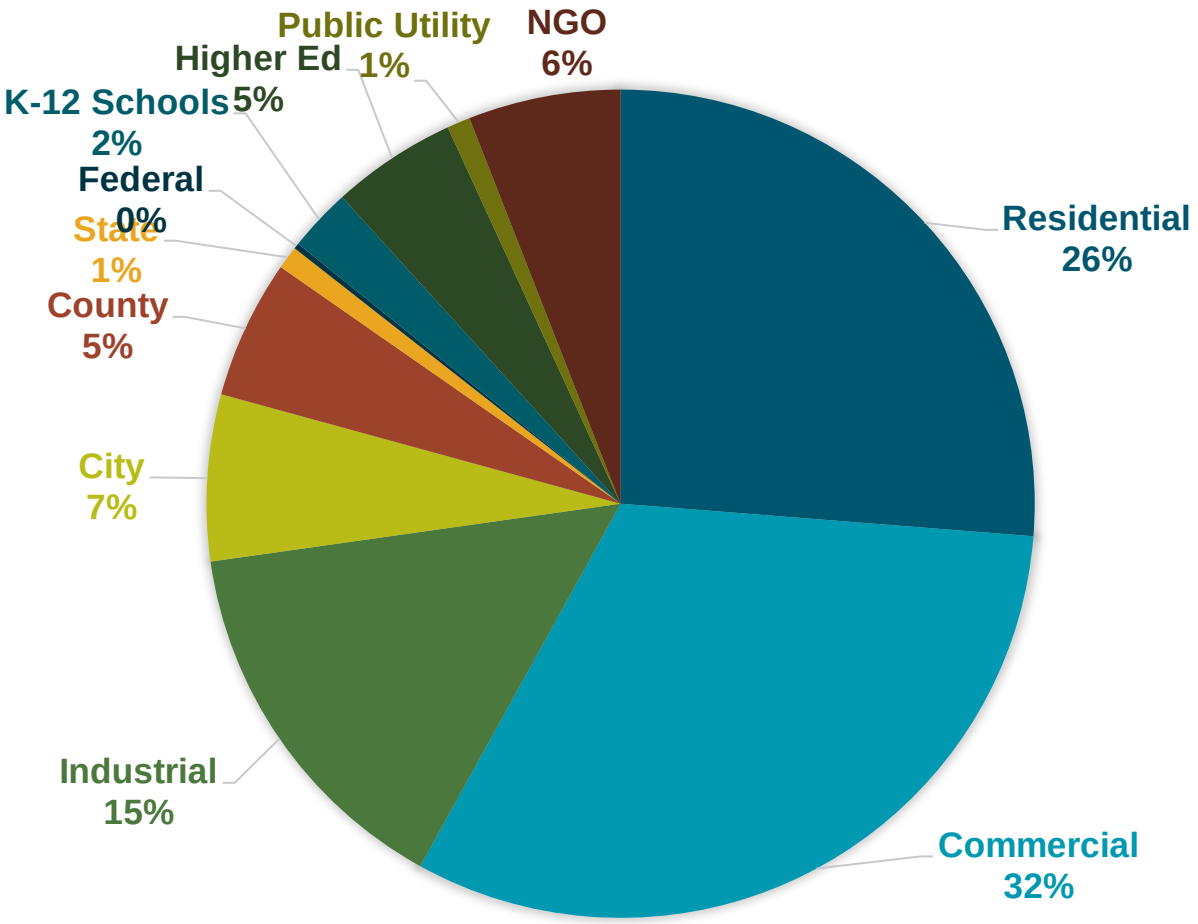
STORMWATER RATE METHODOLOGY

- The SAC chose to use impervious cover as the fair and equitable measure to determine the billing basis for customers
- The Equivalent Residential Unit (ERU) method was used to allocate stormwater costs to the various customer classes within the City. (Commercial, Industrial, Single Family Residential, Non Profit, Municipal, Federal, State, etc..)
- Primary classes of customers were created; C&I, Residential, Tax Exempt
- Preliminary Impervious coverage was determined using aerial photography and local GIS parcel data on over 12,000 parcels

STORMWATER AUTHORITY OF CHESTER IMPERVIOUS COVER STUDY

84% of the City is Developed (11,786 Developed Parcels In the City) Only **56.8%** of property parcel owners reside in the City of Chester	**1,046 Acres** (Total Impervious Covered Area) = **43.5 Million** Square Feet of Impervious Coverage	**38,284** ERUs in the City (1 ERU = 3,000 SF of impervious cover)
Residential uses account for only **26%** of Impervious Coverage (10K ERUs)	Commercial & Industrial Uses account for **46.5%** of Impervious Coverage (17.8K ERUs)	Tax Exempt uses account for **27.5%** of Impervious Coverage (10.6K ERUs)

IMPERVIOUS COVER/SQUARE FOOTAGE BY PROPERTY OWNER TYPE



STORMWATER RATE

Chester Stormwater Utility Rate - $8.25/ERU; 1ERU = 1139 ft2; Average Commercial = 10ERUs (billing units)

Only 17% residential; majority of fees paid by commercial and industrial sectors.

Approximately 50% of commercial/industrial properties have ownership outside of Chester and in some cases the state of PA.

Annual Revenues = Over $2.1M

CBP3 Center of Excellence

The Community-Based Public-Private Partnership (CBP3) Center for Water, Energy and Equitable Economic Resilience

- Outreach and awareness the CBP3 program approach
- Provide training and education on approach, including lessons-learned, Vf analyses and user-friendly templates
- Provide technical assistance to communities interested in packaging CBP3 approaches – developing RFIs, RFQs/Ps, e.g., along with funding/finance scenarios and applications, etc.
- Build Community of Practice for Continuous Improvement and Transfer
- Over 100 communities across the country participating

www.nationalstormwateralliance.org/cpb3/