

Overview of the Community-Based Public-Private Partnership (CBP3) Approach for Green Stormwater Infrastructure



**TRANSFORMATIONAL
PARTNERSHIP\$ CREATING
RESILIENT COMMUNITIE\$**

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We're Paying A Premium for a Legacy of Outdated, Failing Infrastructure!!

D+
\$3.6 trillion
by 2020.



“The heavily engineered, capital intensive, facility-construction solutions that dominated 20th century approaches to water management are no longer sufficient.”

America 2050: An Infrastructure Vision for 21st Century America

**Water
Infrastructure
Grade = D**

**COSTS
OVER
\$ 100
Billion**

**\$700 Billion +
Loss
For Businesses
By 2020**

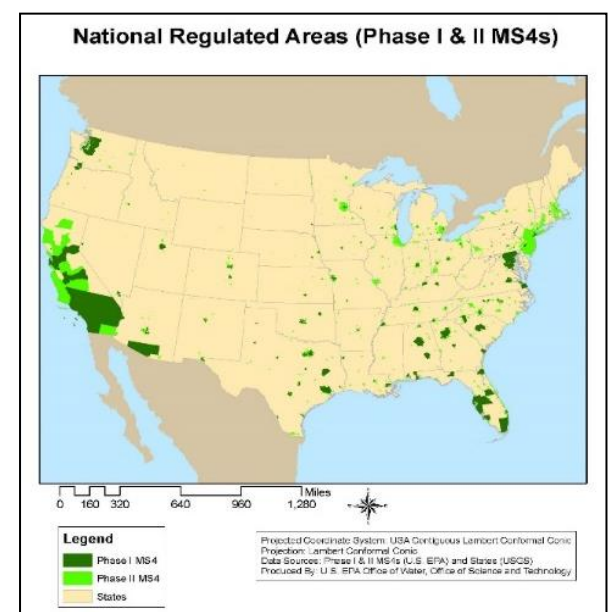


The Regulatory Context - Stormwater/Wet Weather

~\$150B in wet weather/stormwater needs

Regulated Entities

- **7,500** communities regulated municipal separate storm sewer systems (MS4s) in the U.S.
- **Growing interest** and public demand for **green stormwater infrastructure**
- Due to **expanded urbanized acres & increased localized flooding**



Evolution in Stormwater Management

Traditional Stormwater Management



Green Stormwater Infrastructure



Need Viable, Cost-Effective Solutions

It's all
about the
MONEY!



But It's also
about
**DELIVERY &
CAPACITY!**

**O&M Big
Factor!**



What IS a CBP3?



- A new program/projects procurement & delivery model, based upon aspects of the traditional P3 approach
- 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.





What IS a CBP3?

- A non-traditional approach to the P3 framework
- A true, long-term PARTNERSHIP between public and private parties
- An arrangement that stresses Triple Bottom Line Results – economic, social and environmental benefits

What ISN'T a CBP3?

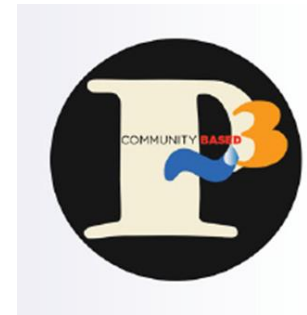
- A traditional P3 framework
- Privatization
- A “one-size fits all” approach with limited benefits to the community



“Bottom Line Up Front”

Accountability

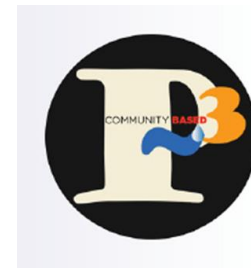
- Public retains control and ownership of all funding, priorities, goals, and assets
- Private sector shares in the execution, construction, and maintenance risks
- Performance based approach of the government’s economic and social goals



“Bottom Line Up Front”

Resiliency

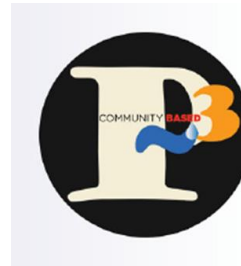
- Flexibility to adapt scope and performance criteria to continue to meet and support Government entity objectives as they evolve
- Reinvestment of all cash flow and savings back to the government
- Alternative financing structures that ensure government control of funding with reserves and sureties



“Bottom Line Up Front”

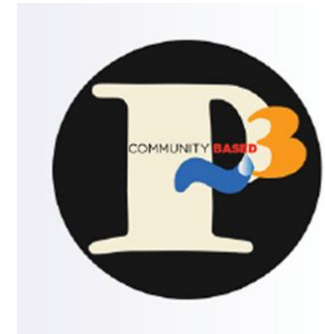
Sustainability

- Surety for operations and maintenance for the life cycle of the assets and any funding liabilities
- Reduced barriers to entry for local small disadvantaged businesses
- Centered on workforce development for meaningful long term employment and practicing



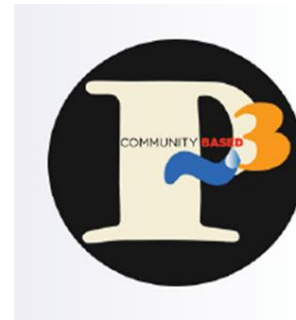
“Bottom Line Up Front”

- **Private sector** is contracted as an **accountable advocate** of the public’s goals and compensated for the achievement of performance based goals vs time and material.
- Incorporates **long-term life-cycle O&M** as part of the capital program funding.

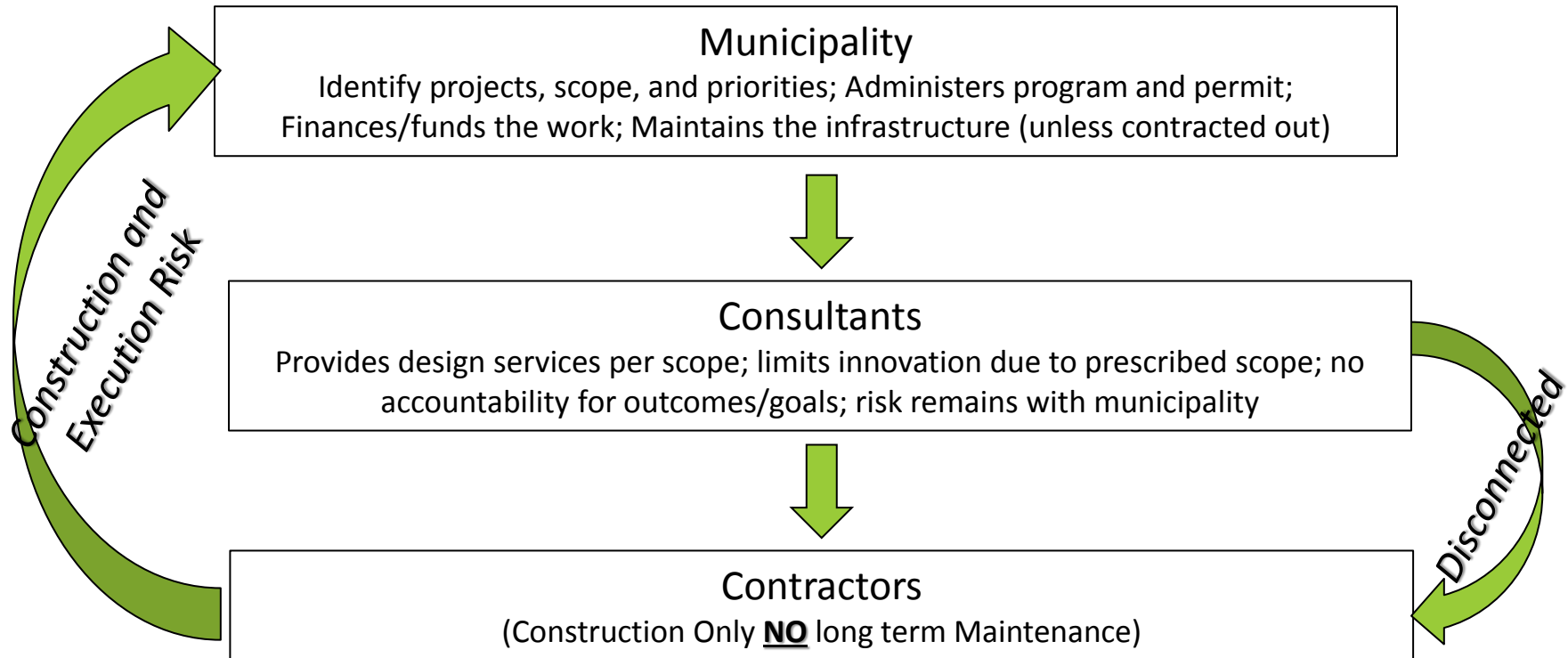


“Bottom Line Up Front”

- **Streamlines procurement inefficiencies** and disconnects that result in change orders.
- **Structured to maximize funding and savings to the projects** versus the consultants/contractors.
- **Leverages private sectors scalability, services, innovation,** and ability to activate and grow the local economy.



Standard Design-Bid-Build Approach



Price Increases Due To

- Low volume of work
- Misaligned interests/priorities
- Frictional costs
- Field conditions
- Sub-par design work
- Change orders



Traditional P3 Approach



Municipality
(Retains responsibility for economic development outcomes)

↓
*Ownership and Control given
to the Private Entity and
financial stakeholders*

Financial Stakeholders
Debt/Equity/Grant
(control priorities, preferred returns)



Private Entity
(Scope, delivery, & return focused)



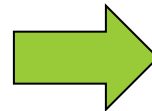
Design/Build



Operate/Maintain

Advantages

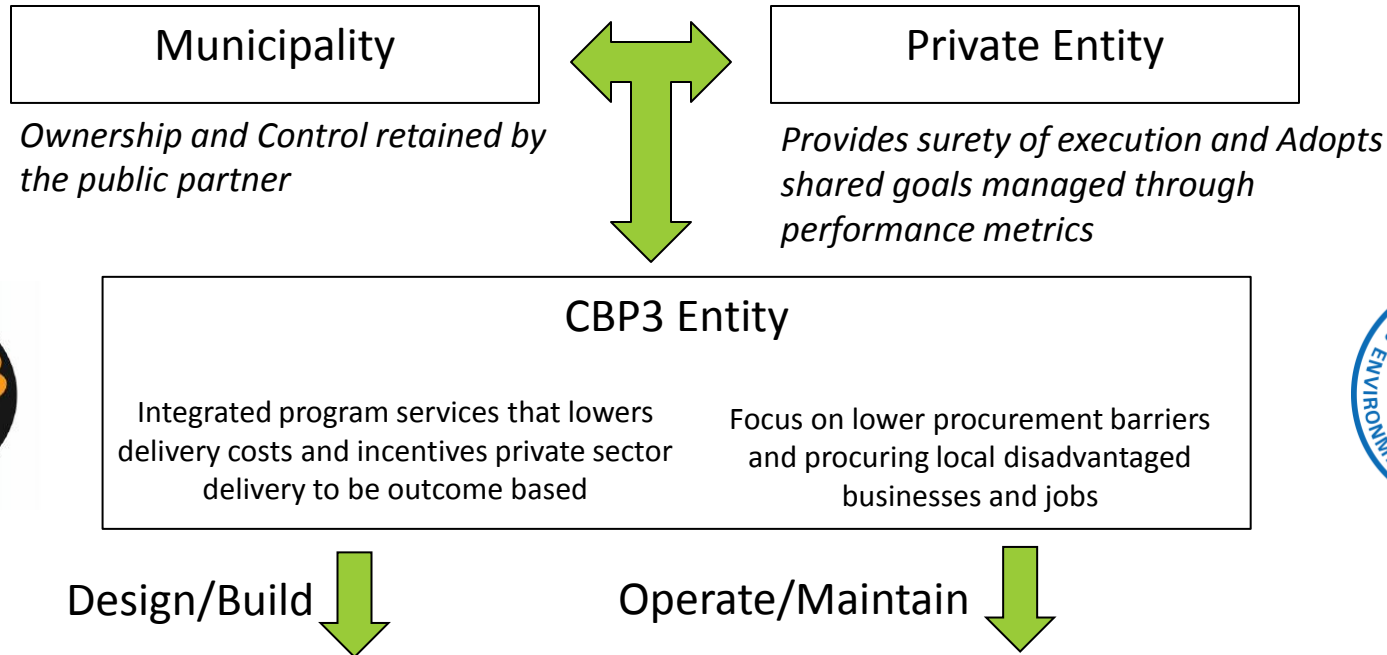
- Reduced project costs
- Project delivery time
- Transfer of risk
- Long term O&M
- Off-balance sheet financing



Disadvantages

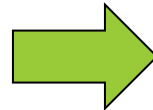
- Profit/return is motivator
- Large reliance on private financing can be costly
- Loss of control by public
- Economic development not a driver

Community Based P3 Model



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
- Municipality has high degree of control/input
- Reinvestment into project
- Aligned interests
- Fixed-fee; Performance goals

CBP3 Business Model Canvas

Key Delivery Capacity

- Community economic development organizations
- Local Subcontractor base
- Planning and Design (A&E) subcontractors
- General construction subcontractors
- Operations and Maintenance subcontractors

Key Activities of Private Partner

- Program Mgmt
- Risk/Financial Mgmt services
- Procurement and mgmt of DBOM
- Economic & Workforce Development
- Community relations

Key Resources

- Legal Know-How
- Financial Know-How
- Public relations / outreach
- Workforce education
- Program/Risk controls
- Technology research
- Federal/State/Local regulations

Value Proposition

- Regulatory compliance
- Long term commitment to maintenance
- Reduced costs through a aggregated design build, finance, operate and maintain solution
- Reduced construction and maintenance risk
- Performance based accountability
- All cash flow and savings reinvested back to the government.
- Create a local marketplace that enables more economic development and job growth
- Eliminate traditional gov't procurement inefficiencies

Customer Segments

- Regulated Public MS4 permit holders through the EPA's NPDES permit program

Stakeholders

- Federal /State Regulators
- City agencies and organizations
- Community organizations

Relationship between Public and Private Partner

- Government retains control
- Governance and oversight of private partner
- Long Term Contractual performance based agreement
- Private partner accountable for delivery, economic, & social outcomes

Cost Structure

- Soft Costs
 - Procurement costs/ Legal negotiation costs
- Hard Costs (all planning and local procurement costs)
 - Program – Social/Economic Development costs
 - Design/Build Cost
 - Operations and Maintenance Costs

Revenue Streams

- CIP / Operating Budgets
- Water /Wastewater fee streams
 - Storm water Utility Fees

Prince George's County, MD



First CBP3 Demonstration Pilot in Country

- CBP3 entity established – Clean Water Partnership (Prince Geo. County / Corvias Solutions) – March, 2015
- \$100M/2,000 impervious acres for initial (3 yr) “pilot” phase
- County MS4 Permit Requires Total of 15,000 impervious acres to retrofit
- Significant cost reductions realized already (e.g. -17 weeks to less than 7 weeks – project design and delivery)
- Recognized by the Whitehouse as an innovative, 21st century approach to addressing water infrastructure & resiliency
- Over 1400 acres already in design/development



Growing National Interests !

First National NCPPP/USEPA CBP3 Summit

December 7, 2015, Philadelphia, PA

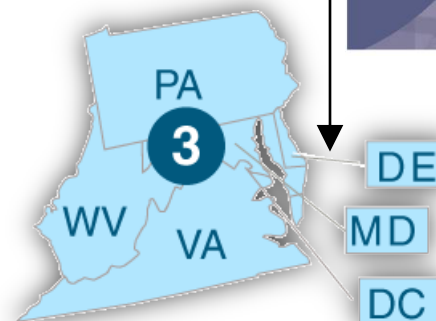
- Over 180 attendees from around the country with multidisciplinary backgrounds
- Presentations on:
 - Technology/innovation
 - Finance/Investing
 - Application of the CBP3 model
 - Public sector views on the CBP3 model
- New/emerging areas of interest:
 - SRF leveraging for GI
 - Real-time Control/Monitoring



CBP3 Community Self-Help Guide

- Led by EPA Region 3 – Issued April, 2015
- A model based upon the DBFOM approach
- Lowers costs through economies of scale and more cost-efficient project delivery
- Based upon long-term partnership
- Aligns community benefits with program incentives
- Download document at:

http://www2.epa.gov/sites/production/files/2015-12/documents/gi_cb_p3_guide_epa_r3_final_042115_508.pdf



WHAT'S Next!!

CBP3 Planning and Implementation Tools

Value for Money (VfM) Analysis

- Status quo/traditional versus P3 Delivery - including CBP3 TBL Analysis

Request For Information (RFI)

- Looking for general interest and input from private sector on approaches, ideas, etc.
- Way to advertise project ahead of RFQ

Request For Qualifications (RFQ)

- Provides project scope and goals
- Requests info on experience, background and approach to meet scope and goals
- Generally does not include costs



WHAT'S Next!!

CBP3 Planning and Implementation Tools

Request For Proposals (RFP)

- Proposals from shortlisted group
- Requests additional background/experience, and approach information
- Includes more details, including costs and financing

CBP3 Contract Documents

- Partnership Agreement
- O&M Agreement



Innovative Financing/Funding

Innovative Approaches

- Incentive-based (Philadelphia, PA)
- Market-based (Washington, D.C.)
- Public-Private Partnership (CBP3) (Prince Georges County, MD)



Market-Based Approaches

Green City, Clean Waters

Big Stick / Big Carrot

- PWD raised stormwater fees on some non-residential property owners
- Credit/rebate of up to 80% provided for onsite retention provided
- Findings show ROI is challenging
- Project aggregation may help
- Stormwater Management Incentive Program (SMIP) and Greened Acres Retrofit Program (GARP) programs launched
 - Fund retrofits <\$100K (SMIP), <\$90K and >10 ac (GARP)



Market-Based Approaches



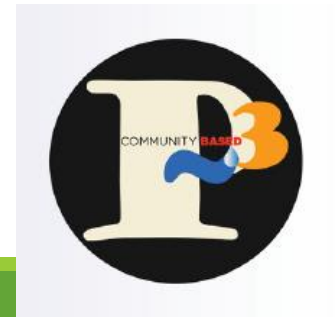
Stormwater Volume Trading

- District of Columbia's Stormwater Retention Credit (SRC) program
- Half on-site required, rest can be purchased
- Credit buyers in urban core, credit generators in outlying urban districts
- Exported retention could lead to social and environmental benefits and economic efficiencies
- First trade occurred in September, 2014!!!



CBP3s in Other Contexts?

- More CBP3s expected to emerge in near future
- Designed to be a flexible and transferrable model
 - Varying financial conditions, scales, etc.
 - Helpful if a dedicated funding source exists (stormwater utility, etc.)
- Can be used to address a number of drivers
 - Water quality, flooding, economic development, resilience, and more



Do P3s Work Everywhere/All the Time?

No – it depends upon...

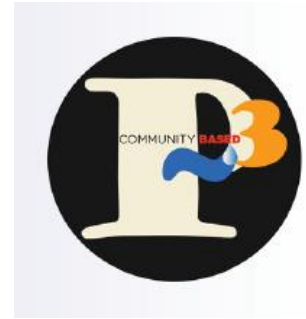
- State statutes and local procurement process
 - Texas has strong P3 legislation
- Financial condition of local jurisdiction
- Outcome of Value-for-Money analysis
- Regulatory driver(s)
- Attitude towards P3 approach
- Outcome-based vision, not restricted to project-based vision



How to Get Started

Starts with a vision...

- Articulate your program/community goals
 - Developing an RFI and/or RFQ can help
- Perform a Value-for-Money analysis
- Develop a RFP
- Negotiate with top candidate
- Finalize and move forward



Community-Based Public-Private Partnerships (CBP3) for Green Stormwater Infrastructure



Thank You!

**TRANSFORMATIONAL PARTNERSHIPS
CREATING RESILIENT COMMUNITIES**

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