



THE POWER OF PROCUREMENT: HIGH ROAD INFRASTRUCTURE



DOUGLASS SIMS
POWER OF PROCUREMENT
CONFERENCE
CHICAGO MAY 16, 2019



About NRDC

- The Natural Resources Defense Council is an international nonprofit environmental organization with more than 3 million members and online activists.
- Since 1970, we have worked to protect the world's natural resources, public health, and the environment.
- Fighting climate change, increasing access to clean energy for all and building clean energy jobs are all among NRDC's top institutional priorities.
- We have almost 700 staff around the United States, Beijing and New Delhi.

What is High Road Infrastructure?

FULFILLS CORE FUNCTION



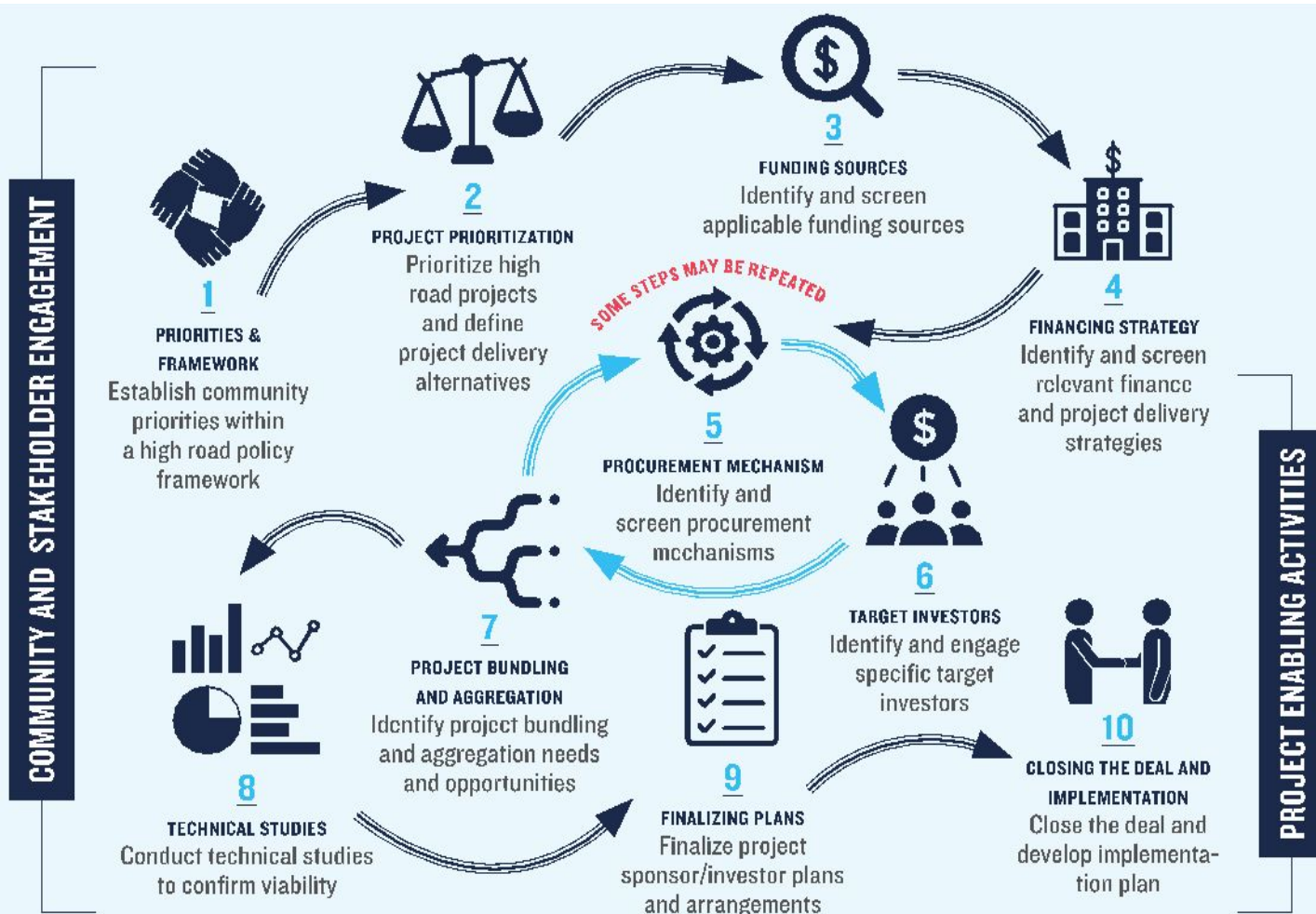
DELIVERS RESILIENCE, ENVIRONMENTAL, SOCIAL
AND ECONOMIC BENEFITS COST EFFECTIVELY



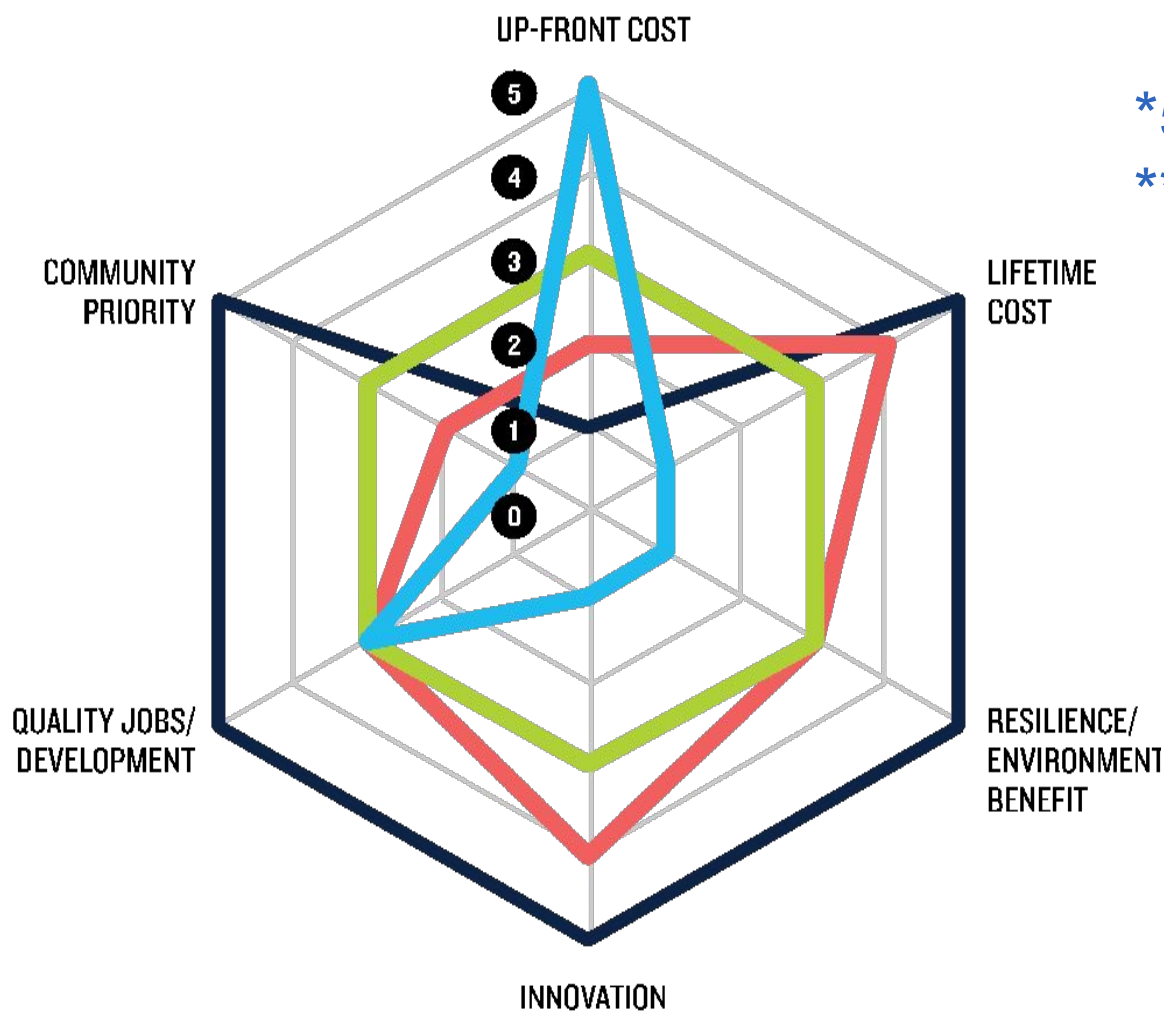
What's on the Low Road?

- Upfront costs instead of lifecycle costs
- Ignoring community priorities
- Seeing silos, not synergies – “wrong pocket” problem
- Failure to incorporate value of resiliency and co-benefits
- The view that quality jobs are inconsistent with cost-effective projects
- Transforming places but displacing people
- Locking in outdated technologies
- Unconditional love or irrational fear of public-private partnerships

What's the Overall Process?



Step 2: Expand the Standards!



*5 is good
**1 is bad

How do we do Renewable Energy Math?

- Higher Cost of Power

+ Market Value of Energy Products

+ Lower Wholesale Energy Prices

+ Emissions Reductions

+ Economic Development

= + NET ECONOMIC BENEFIT

Cost of Offshore Wind



Subtract:

- Contract price per MWh of energy is the “sticker price”
- Covers capital and operating and maintenance costs over PPA term (e.g., 20 years)
- Price is fixed except for adjustments due to inflation
- OSW higher than most sources

Market Value of Energy Generated



Add:

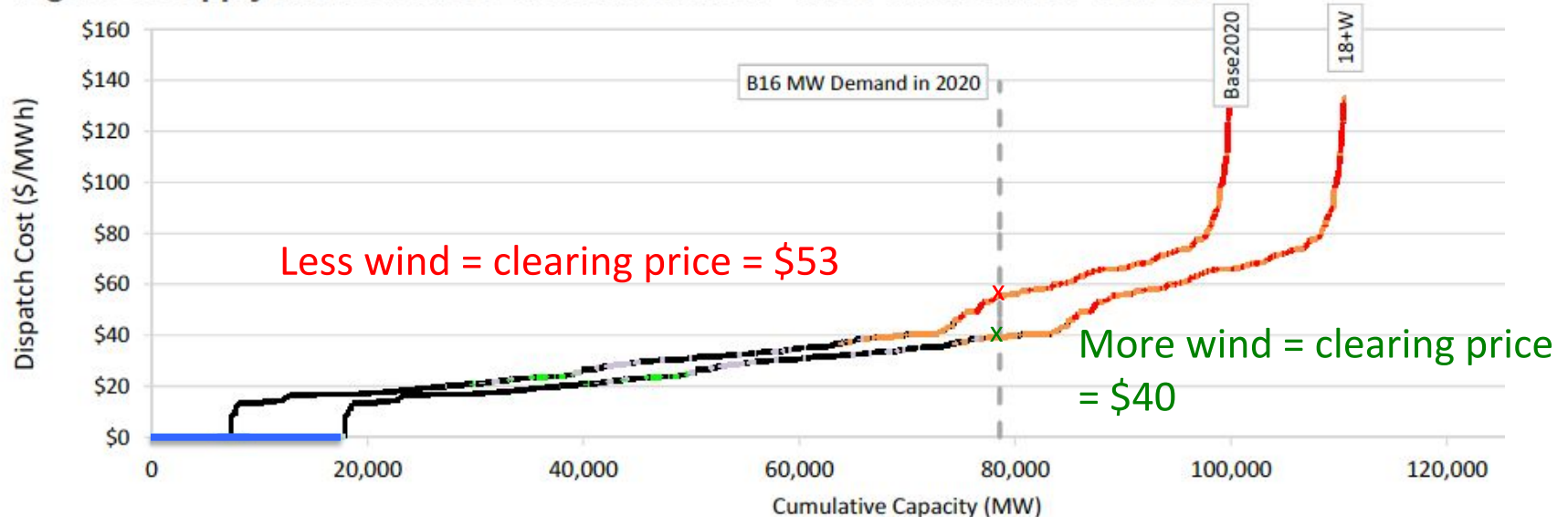
- Market price of energy sold into the market
- Value of renewable energy credits
- Value of other energy market products sold by the OSW farm (e.g. capacity)

Lower Wholesale Energy Prices

Add: Value of “price suppression”

More wind = more zero fuel cost energy = lower market clearing price

Figure 8. Supply-Induced Price Effect Illustration – MISO Market Area - for 2020



Source: Synapse. Note: blue = wind, black=coal, orange/red=gas/oil.

Value of Avoided Emissions



Add:

- OSW improves local air quality by displacing fossil fuel generation
- Emissions are contributing factors to serious human health and climate problems
- Values can be quantified!!!

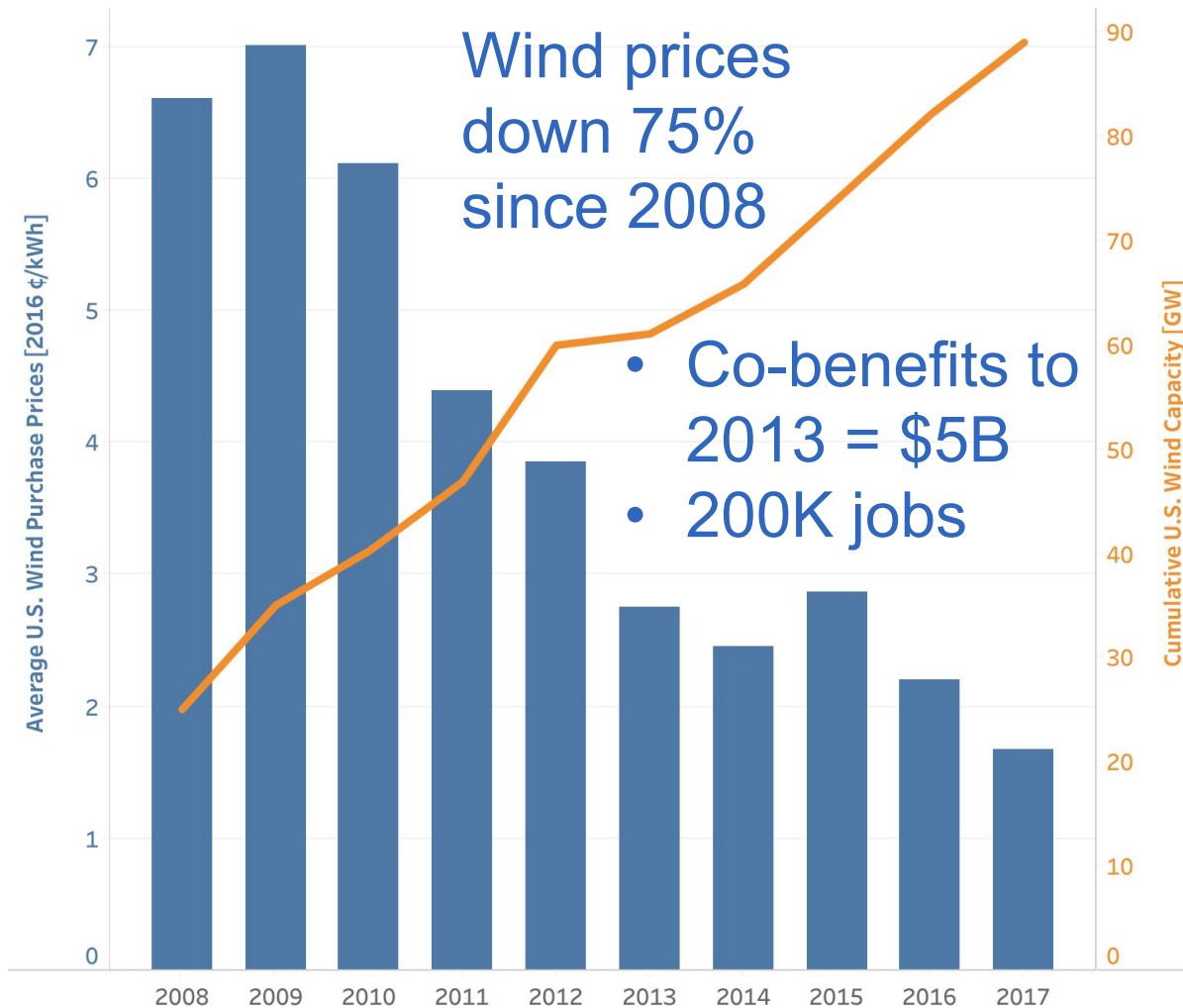
Economic Development



Add:

- Development will vary with equipment manufactured and services procured locally
- DOE study by Navigant
- Up 350K FTE by 2030
- Investment up to \$70BN per year

Pay More Now, Pay Less Later



Green Infrastructure Co-Benefits are Many



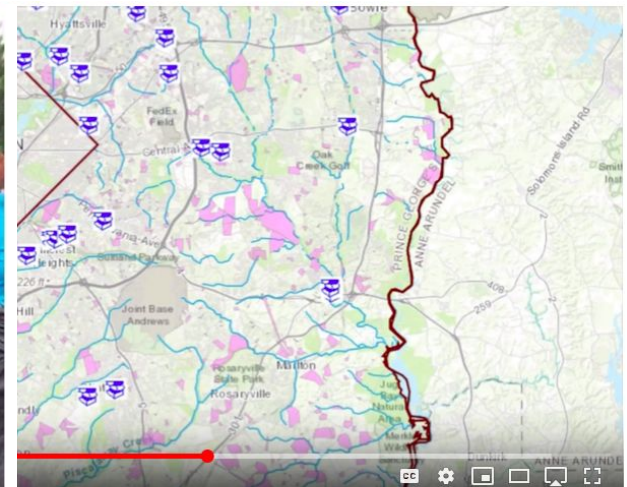
Porous concrete sidewalk Paerdegat Basin, CSO Detention Facility, Brooklyn, New York.



An enhanced tree pit on Autumn Avenue, Brooklyn, New York.



High Road Infrastructure: Forging a New Vision



Case Study: PG County Urban Retrofit



Request for Qualifications
RFQ S13-083

Urban Retrofit Program
Public Private Partnership



Environmental: Legal obligation – a standard - to reduce water pollution from runoff



Economic: stormwater fee must be approved by county

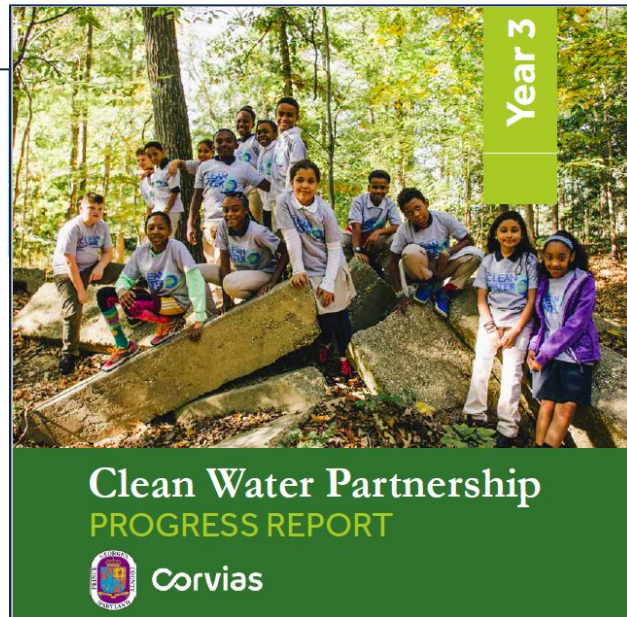


Social: opportunities for community and economic development, neighborhood betterment, jobs and education



Barriers: wide-ranging, complex construction project and limited county management capacity, short deadline, technology risk, how to achieve social outcomes

Results: Co-benefits by Design!



	Phase 1	Phase 2	Total Combined To Date
Total PGC Resident Utilization	112,712	19,438	131,150
Total Non-Resident Utilization	124,097	18,348	142,535
Total Combined Resident/Non-Resident Utilization	221,821	37,786	259,607
Total PGC resident Utilization Percentage	51%	51%	51%

66 Businesses Contracted
1,594 Businesses Reached
221,821 Work Hours Generated

DISTRICT 1 (13 BUSINESSES)

Business Outreach 280 Companies
 Ceisue Construction Services Inc (HMP)
 Kim Engineering, Inc.
 Assedo Consulting, LLC
 Rapp Contracting, Inc.
 Mid-Atlantic Site Contracting, Inc.
 GeoTech Engineers, Inc.
 Low Impact Development (LID)
 Bradley Site Design Inc.
 Capital Development Design, Inc.
 Video Pipe Services, Inc.
 NARDI Construction
 Joseph Canova & Son, Inc.
 Bulldog Distribution, LLC

DISTRICT 2 (2 BUSINESSES)

AED
 DAD Environmental Construction (HMP)

DISTRICT 3 (4 BUSINESSES)

Business Outreach 216 Companies
 End Time Harvest Ministries
 Apercon, Ltd.
 Total Civil Construction
 Empowering Ideas

DISTRICT 4 (5 BUSINESSES)

Business Outreach 212 Companies
 Anavo Transformation Solutions, LLC
 Bourn Environmental, LLC (HMP)
 Dirt Plus, Inc.
 HRPro4You, LLC
 SMI Services

DISTRICT 5 (9 BUSINESSES)

Business Outreach 216 Companies
 Anacostia Watershed Society
 BOTA Consulting Engineers, Inc. (HMP)
 Estime Enterprises (HMP)
 Kiria Earthworks (HMP)
 Printing Express & Design
 Sotasz
 Total Civil Construction
 Harris Plus Printing
 Sutter Group

DISTRICT 6 (15 BUSINESSES)

Business Outreach 785 Companies
 AKRF, Inc.
 Independent Consulting Service
 Three E Consulting Group, LLC
 M&G Services, Inc.
 D&F Construction Co Inc.
 Ben Dyer & Associates, Inc.
 JNL Services, LLC
 Linemark LLC
 VH Sign Company
 Ngen
 BrewtonMos, LLC
 Copeland Financial Group, Inc.
 Turning Point Coaching
 Gryphon Consulting
 HR In Motion LLC
 Prince George's Community
 College Westphalia Training Center

DISTRICT 7 (2 BUSINESSES)

Business Outreach 51 Companies
 Dickey & Associates, LLC
 Ascendant Materials II, LLC

DISTRICT 8 (5 BUSINESSES)

Business Outreach 70 Companies
 Alpine Snow Removal and
 Landscape, LLC
 Faulkner Lawn Care & Landscaping (HMP)
 The Knot Organization
 Beltway Paving of Southern
 Maryland
 Denison Landscaping

DISTRICT 9 (11 BUSINESSES)

Community Bridge, Inc. (HMP)
 F&F Landscaping Inc
 Clinton Sewer Expert
 G-11 Enterprises, Inc. (HMP)
 Dirt Plus, Inc.
 Century Fence Construction, LLC
 Essex Construction, LLC
 Grace Management &
 Construction, LLC (HMP)
 Green Forever Landscaping (HMP)
 Denison Landscaping & Nursery
 Inc

HMP Mentor Protégé

What are High Road Results?

The Proof is in the Data Points

04

2000

PLANNED ACRES
REQUIRED

**2,129.26 ACRES COMPLETED
AND CERTIFIED**



PUBLIC SCHOOLS

31.78

ACRES

22 SITES

The CWP has been a catalyst and collaborator with various other non-profits in the development of educational resources to support environmental literacy in PGCPSS



MUNICIPAL SITES

57.74

ACRES

23 SITES

Retrofits to municipal properties across the County; positive relationship building with municipal leaders and community stakeholders



PUBLIC PONDS

2034.26

ACRES

34 SITES

High credit volume enhancements and treatments to ponds in and around residential managed by the County



ALTERNATIVE COMPLIANCE
PROGRAM

5.48

ACRES

15 SITES

Alternative compliance retrofits focused on Faith-Based community NGO properties; requires coordination and relationship building with church leadership and congregation

PARTNERING WITH THE COMMUNITY

The CWP consists of multiple projects that are planned, designed and constructed within the 2,000 acres of the MS4 Permit. They utilize a wide array of Maryland Department of the Environment (MDE) approved structural treatment options ranging from small rain gardens on private property as a part of the Alternative Compliance Program to large urban retrofit solutions involving suburban drain inlet modifications, pond retrofits, County right-of-way Best Management Practices (BMPs), as well as green streets and high-flow media treatment options.

GOALS EXCEEDED

40%

COUNTY RESIDENT WORKFORCE

\$8M

PROJECTED SURPLUS TO BE
RE-INVESTED IN THE PROGRAM

143%

INCREASE IN LOCAL
ECONOMIC IMPACT

COMMUNITY IMPACT



\$500,000

INVESTED IN
STUDENT INTERNSHIPS



**MORE THAN
200 OUTREACH
EVENTS**

IN THE BUSINESS
COMMUNITY



SMALL CHURCHES

CONNECTING WITH
CONGREGATIONS AS PART OF
OUR CWP PARTNERSHIP WITH
FAITH-BASED AND 501(c)(3)
NON-PROFIT GROUPS

*Numbers through June 30, 2018

Thank you

For more information & video visit:

<https://www.nrdc.org/resources/taking-high-road-more-and-better-infrastructure-united-states>

