Tale of Two Cities: Stormwater Fee Proposal & Implementation Plan

Charlotte Katzenmoyer, CEO

Capital Region Water,
Harrisburg, PA

PENNVEST SW Programmatic Financing

Decentralized Green/Grey Controls

- Target: Manage 50 acres of impervious area with Green Stormwater Infrastructure (GSI) and decentralized grey stormwater controls
- First 5 years of the program are funded thru PENNVEST low interest loan - $13MM
- The projects are focused in three priority planning areas to address the need for more stormwater control in those areas

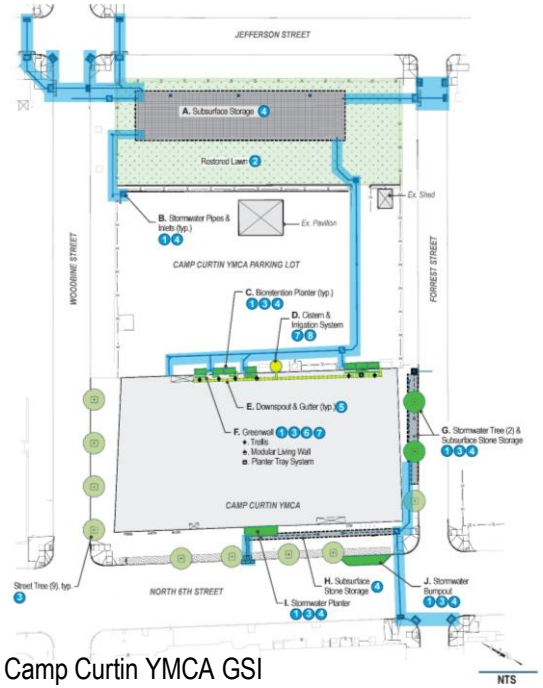
Schedule:

- 2020 – 2021 Phase 1 & 2: South Allison Hill GSI, 4th & Dauphin Park GSI (Approx. 3 managed acres)
- 2021 – 2022 Phase 3: Camp Curtin YMCA GSI and Bellevue Park SW Ponds (Approx. 8 managed acres)
- 2022 – 2024 Phase 4: Lower Paxton Creek, Uptown, and Lower Front planning areas GSI Projects Package (Approx. 21 managed acres)
- 2023 – 2025 Phase 5: Lower Paxton Creek, Uptown, and Lower Front planning areas GSI Projects Package (Approx. 18 managed acres)

PPA	Project	Catchment	# of GSI	Potential GSI Types	GSI Location
Lower Front	Court at Washington Square	S-018; S-019	3	2 rain gardens, 1 sub-surface trench	Private
Lower Front	Intersection of Dewberry and 3rd Street	S-018	1	Subsurface trench	Public Parcel
Lower Front	Intersection of Vine and 2nd Street	S-019	1	Subsurface GSI, maybe tree trench	
Lower Front	Riverfront Park	S-017; S-057; S-018, S-019	2	Rain Garden	
Uptown	Midtown Development	S-010; S-011	8	Bioswales, tree trench-es, subsurface exten-sion	Private/ ROW
Uptown	Hamilton School	S-051	5	Subsurface GSI, maybe trees?	Private Parcel
Uptown	4th and Emerald Park	S-050; S-051	1	Rain garden/subsurface	
Uptown	326 Peffer St		3	Rain garden/subsurface	HRA Parcel
Lower Paxton	Vernon St Park	S-059; S-048	1	Bioswales, splash pad GSI	Public Parcel
Lower Paxton	Boys and Girls Club	S-048; S-044	2	Rain garden/subsurface	
Lower Paxton	Swatara Park	S-048; S-044	4	Rain gardens	

Early Action Projects – Phase 4 PENNVEST GSI Projects Package

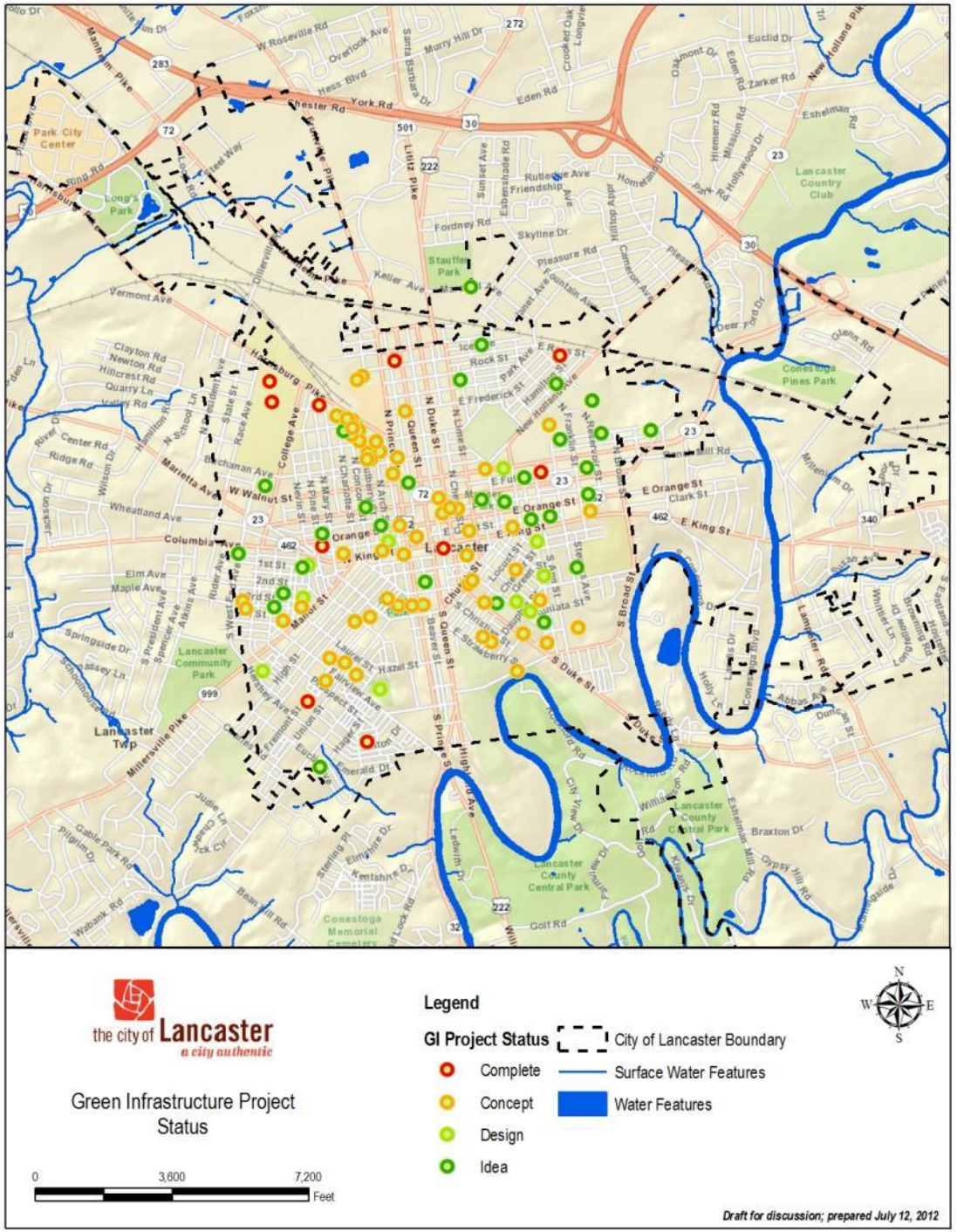
Bellevue Park SW Ponds



Camp Curtin YMCA GSI

Lancaster's Save It! and SRF/Grant Funding

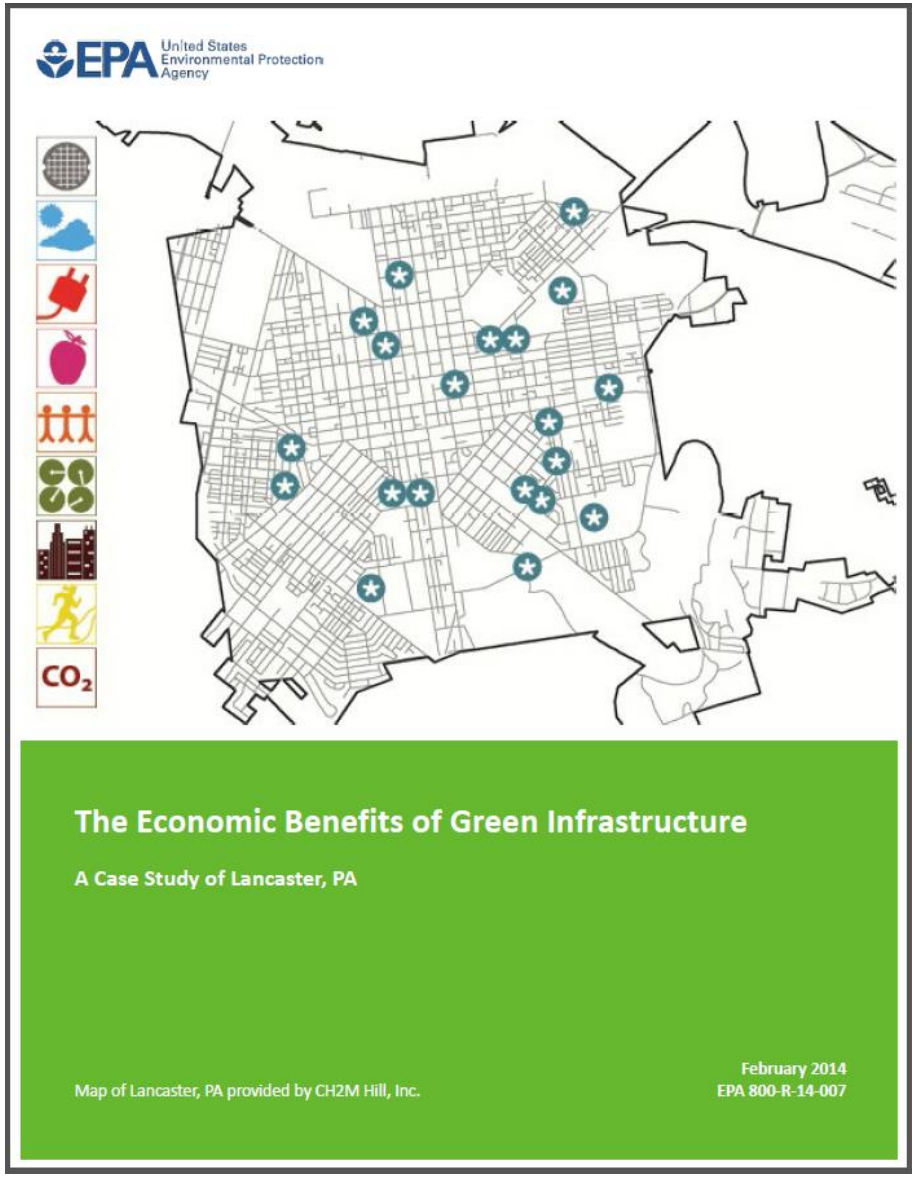
Status	# of Projects	Impervious Area Managed (acres)	Annual Runoff Capture (Gal/yr)
Constructed /Under Construction	18	8.8	8,088,000
In Design for Construction	6	5.5	3,856,000
Pennvest	44	23.7	20,828,000
Conceptual Designs	16	8.6	7,682,000
Growing Greener Plus	5	2.0	308,000
In Project Planning	35	-	-
Total	**124**	**48.5**	**40,762,000**



Triple Bottom Line Benefits

2014 EPA report estimates the following benefits of implementing the GI Plan in Lancaster:

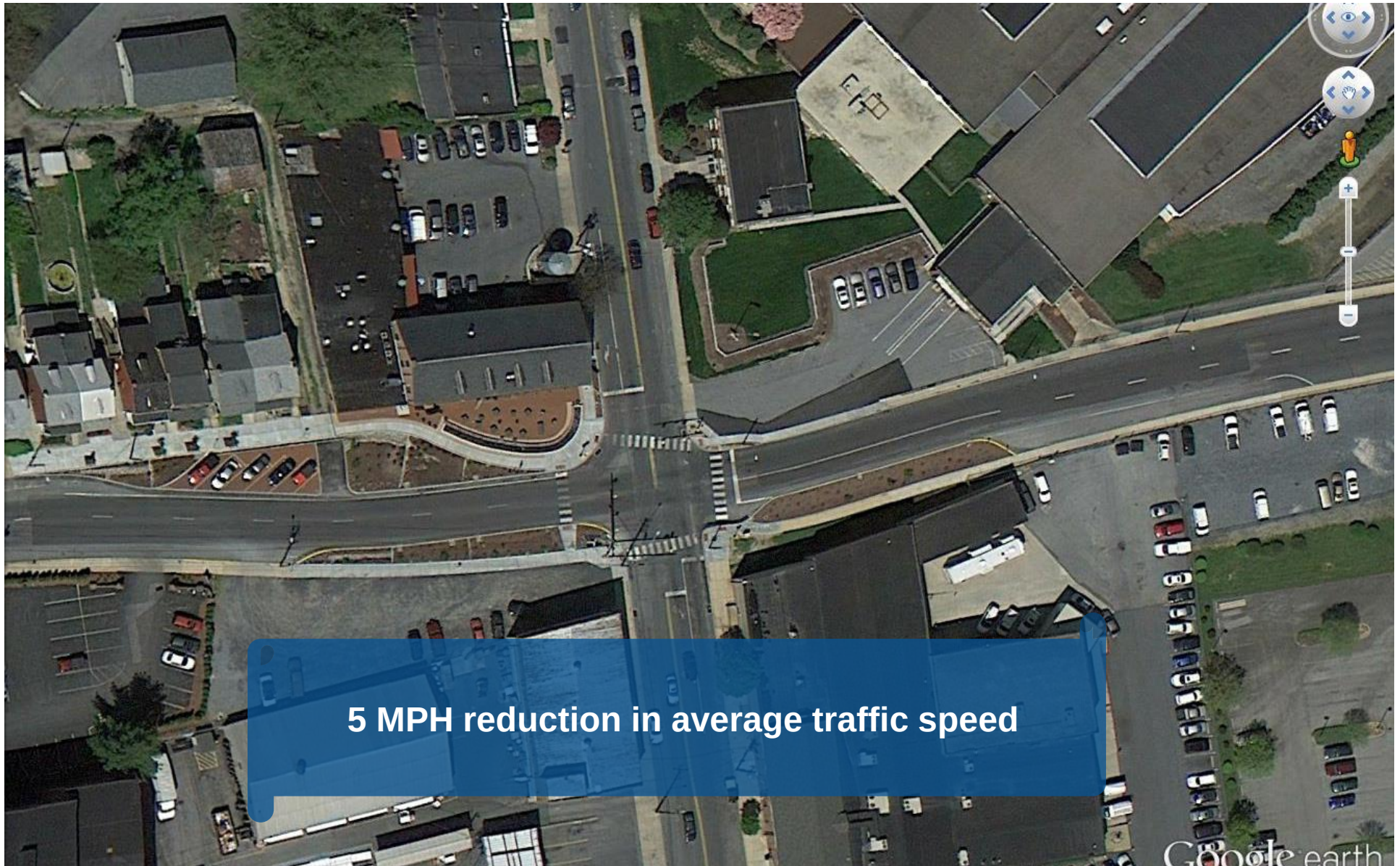
- $4.2 million/year in energy, air quality, and climate-related benefits
- $660,000 annually in reduced wastewater pumping and treatment costs (at current costs)
- $120 million in avoided gray infrastructure (e.g., tanks, tunnels)
- For an GI investment of $80 - $140 million (depending on level of integration)



Funding Sources

- State Revolving Funds/PennVest
- State (Gas Tax) Liquid Fuels Program
- PennDOT Automated Red-Light Enforcement (ARLE) Program
- Smart Growth Transportation Program (SGT), Lancaster County MPO
- PA DEP – Growing Greener
- PA DCNR - Dirt and Gravel Roads Maintenance Program
- National Fish and Wildlife Foundation
- Chesapeake Bay Trust Green Streets Green Jobs Green Towns
- CROWDFUNDING!

Using Traffic safety and transportation funding to reduce accidents *and* runoff



The Lancaster Brewing Company "Beer Garden" is Coming!

700 Gallon Cistern functions as public art and irrigates planters

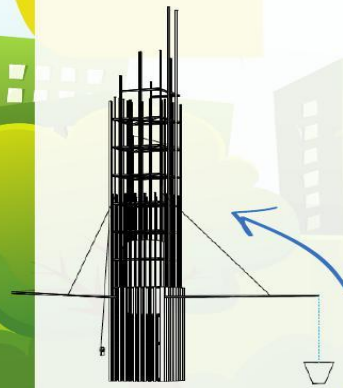
HEY KIDS!

Ever wonder where all the rain and snow goes after a storm?

Water that rains down washes over streets, lawns, parking lots and off of roofs, like the one over your head, and eventually into storm drains (the grates you see on sidewalks and streets). Along the way, the water gets really dirty from things like litter, pet waste, chemicals, oils and car fluids.

While some of it can be cleaned up at a treatment center, some of that dirty water ends up in our creeks, ponds and lakes like the Conestoga River, and eventually flows all the way to the Chesapeake Bay!

Each year, 750 million gallons of polluted water from Lancaster City ends up in the Bay. That's a lot of dirty water! *What if we could keep it clean?!*



There are lots of ways we can all help recycle water.

And one of those ways is *right here where you are eating*— the cool Public Artwork outside this restaurant, called **"Lancaster's Gateway Bundle."**

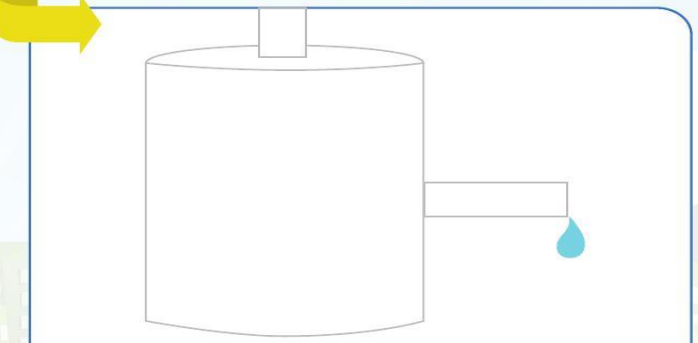
When rain falls or snow melts on the roof, it flows right into the giant "bucket" (called a cistern) attached to the building. The cistern catches that water before it flows through the drains into the rivers. It can hold 750 gallons of water (thats enough to fill your bathtub over 30 times!)

And guess what? Not only do we keep that dirty water from going into our rivers and streams, that water can be used to water the plants in the restaurant's garden outside.

NOW THAT'S COOL!

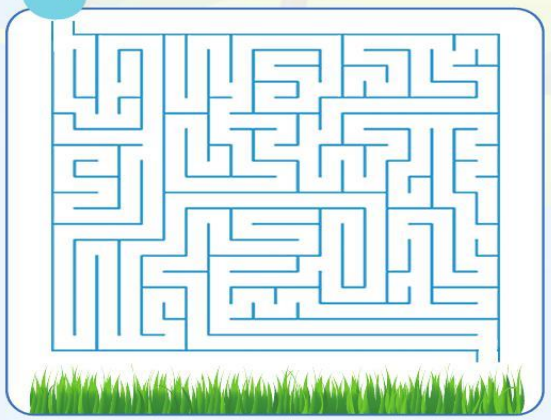
Lancaster's Gateway Bundle

TURN THIS CISTERN INTO YOUR OWN PIECE OF ENVIRONMENTAL ART:



(don't forget to draw all the plants the cistern will help water!

HELP THE RAINDROP FIND ITS WAY TO THE RAIN GARDEN



SAVE IT!
YOUR WATER. YOUR MONEY. YOUR CITY.
www.saveitlancaster.org

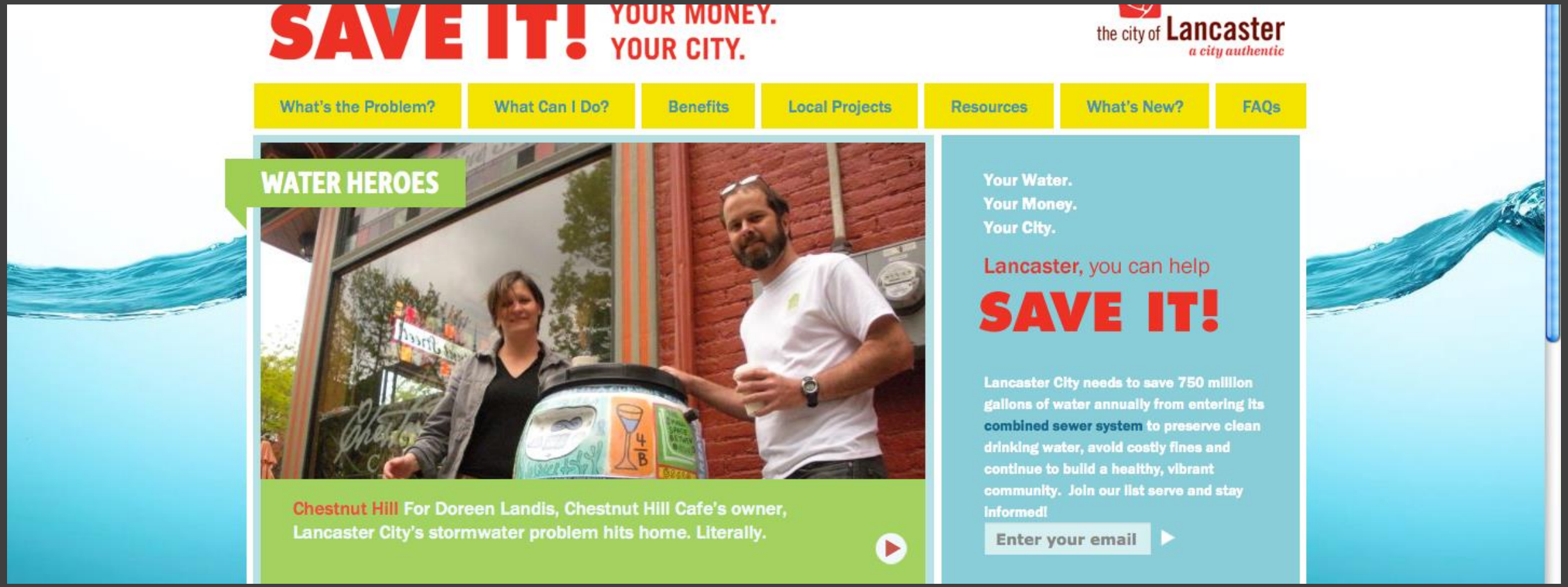
Lancaster Brewing Company

A+M

gsm INDUSTRIAL
Metal Fabrication & Installation Contractor
A Gooding Company

Process for Developing Stormwater Fee

- **Drivers**
  - Increased Stormwater Program Needs
    - Regulatory Compliance
    - Aging Infrastructure
    - Localized Flooding
  - Financial Modeling
    - City Beautiful H_2O Program Financial Capability Analysis –
      - Equity Considerations – Nexus between User Fee and Service
- **Defining the Stormwater Program**
  - Outlined in CRW ***Community Greening Plan*** and ***CBH_2O Program Plan*** and Lancaster's Long-Term Control Plan
- **Pilot Projects**
  - Demonstrate the Plan in each neighborhood
- **SW Fee Planning and Implementation Report (CRW - Raftelis Report and Lancaster – CH2M Hill SW Fee Evaluation)**
  - Explored Funding Options and determined a Funding Approach
- **Public Engagement**
  - Use of Diverse Advisory Task Force to Inform Decisions/Advocate



Community education/outreach
AND
Branding

City Beautiful

H_2O

Community education/outreach
AND
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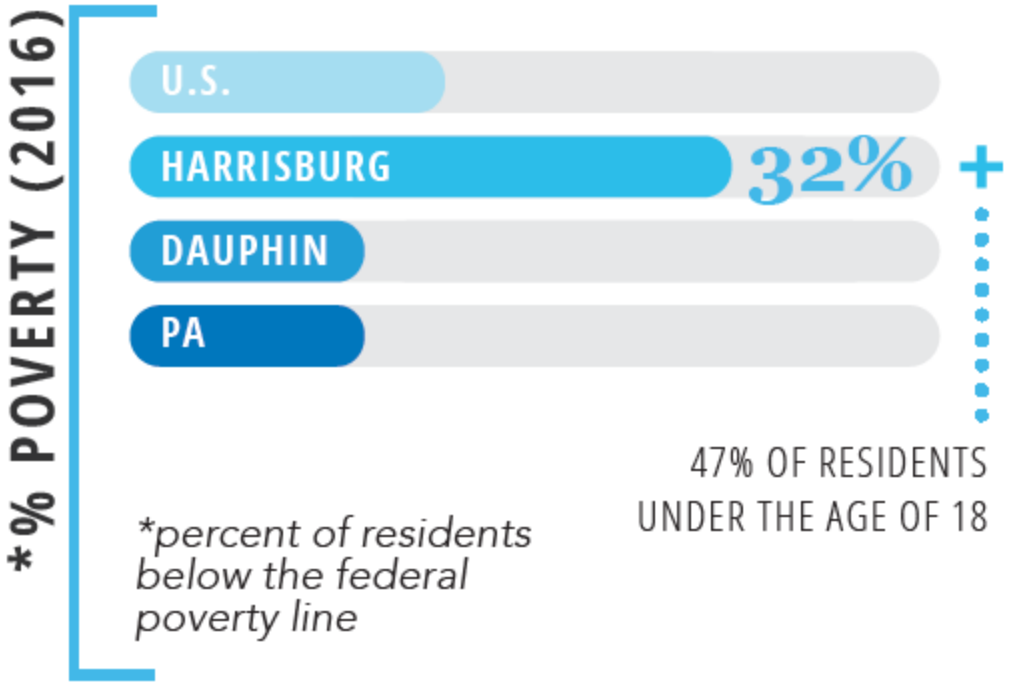
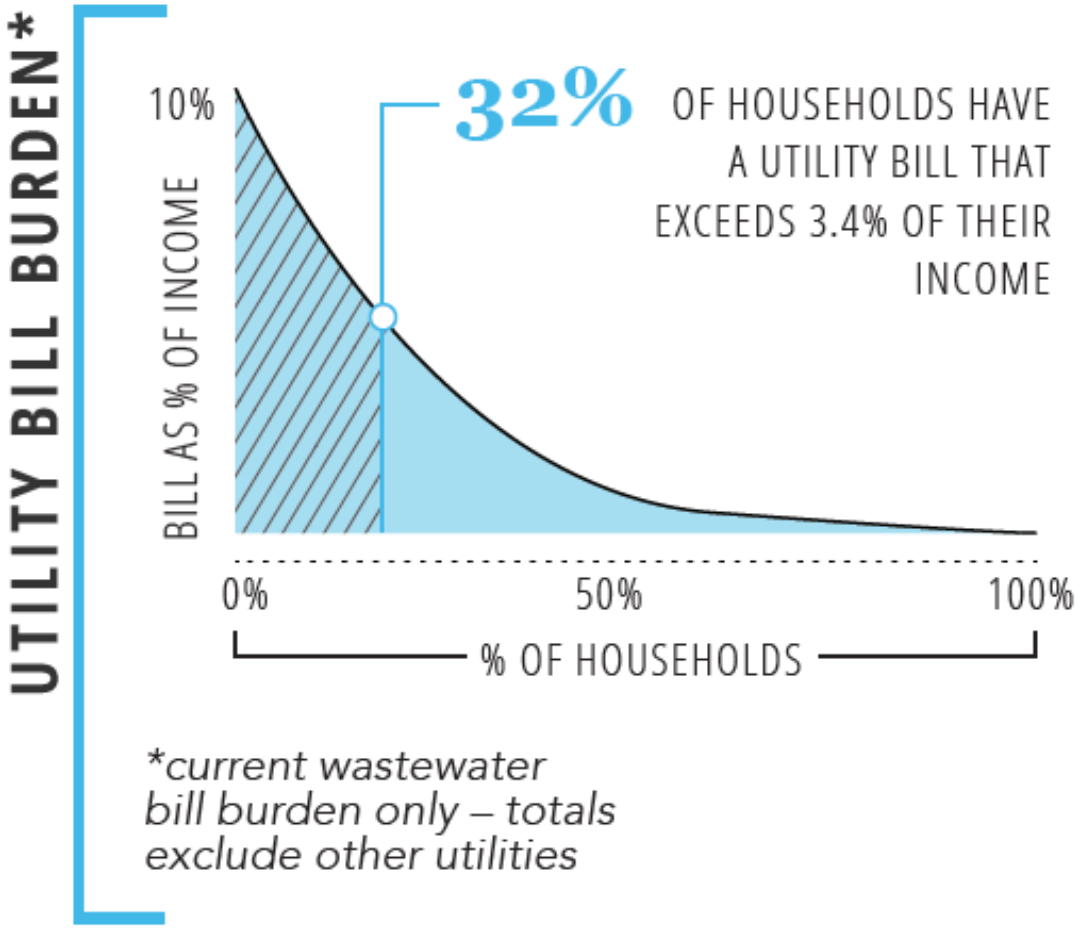
Financial Capability





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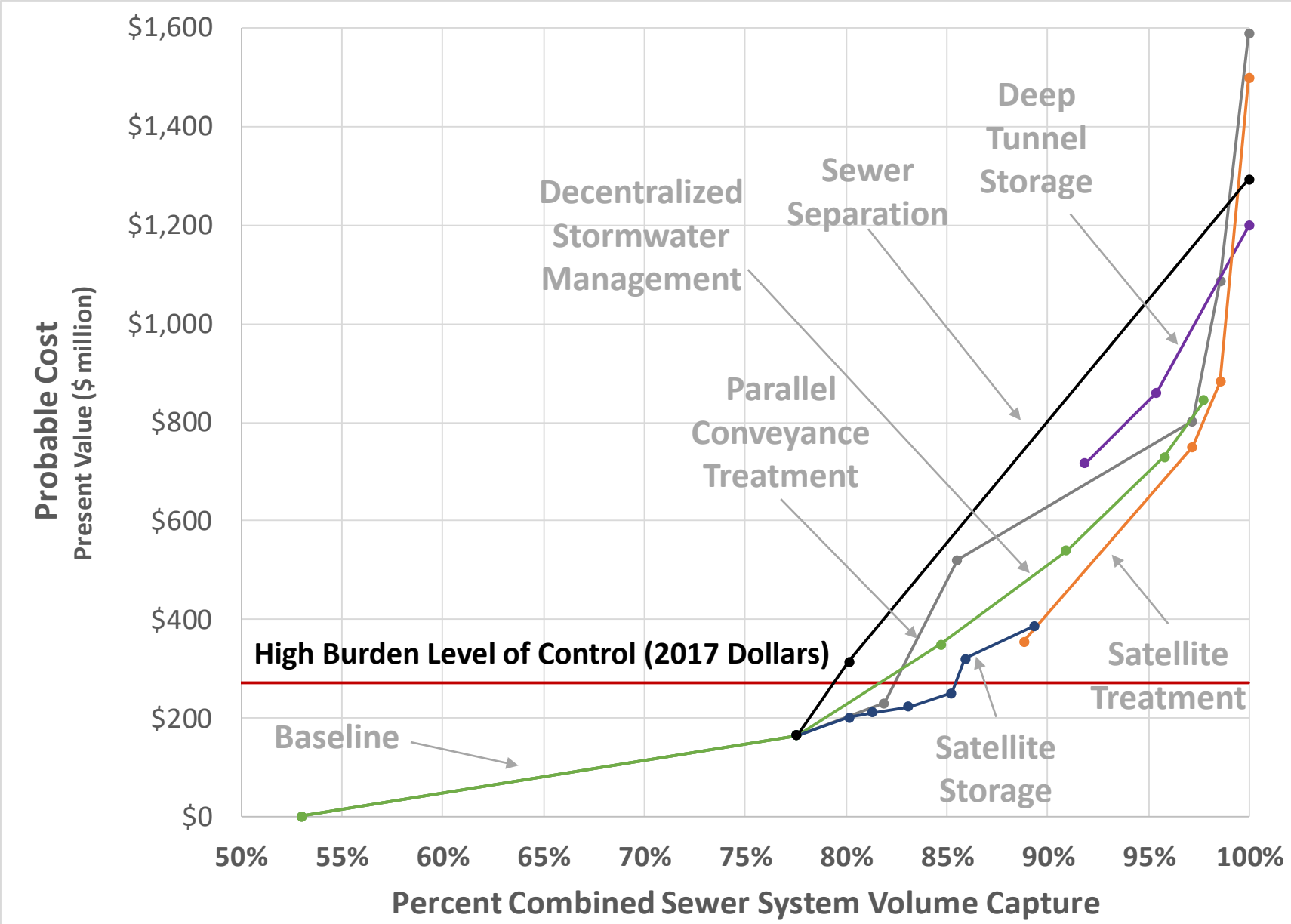

Financial Capacity Assessment (FCA):

- The FCA quantified a high level of financial burden
- Defines "affordability" by official government standards not local realities

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Evaluating Control Alternatives

Knee of the Curve Cost-Performance

Evaluating Control Alternatives

Comparing the Local - Decentralized Control Strategies

Centralized End-of-Pipe

- Only controls CSOs
- No multi-objective community benefits
- Funded solely via sewer rates
- Inflexible large projects
- Beyond financial capability constraints

Local – Decentralized Green/Grey

- Controls CSOs and basement flooding
- Supports community revitalization
- Multiple funding sources available
- Flexible mix of small projects
- Integrates with collection system rehabilitation
- Fits financial capability constraints

Why a Stormwater Fee

More Equitable Recovery of Costs

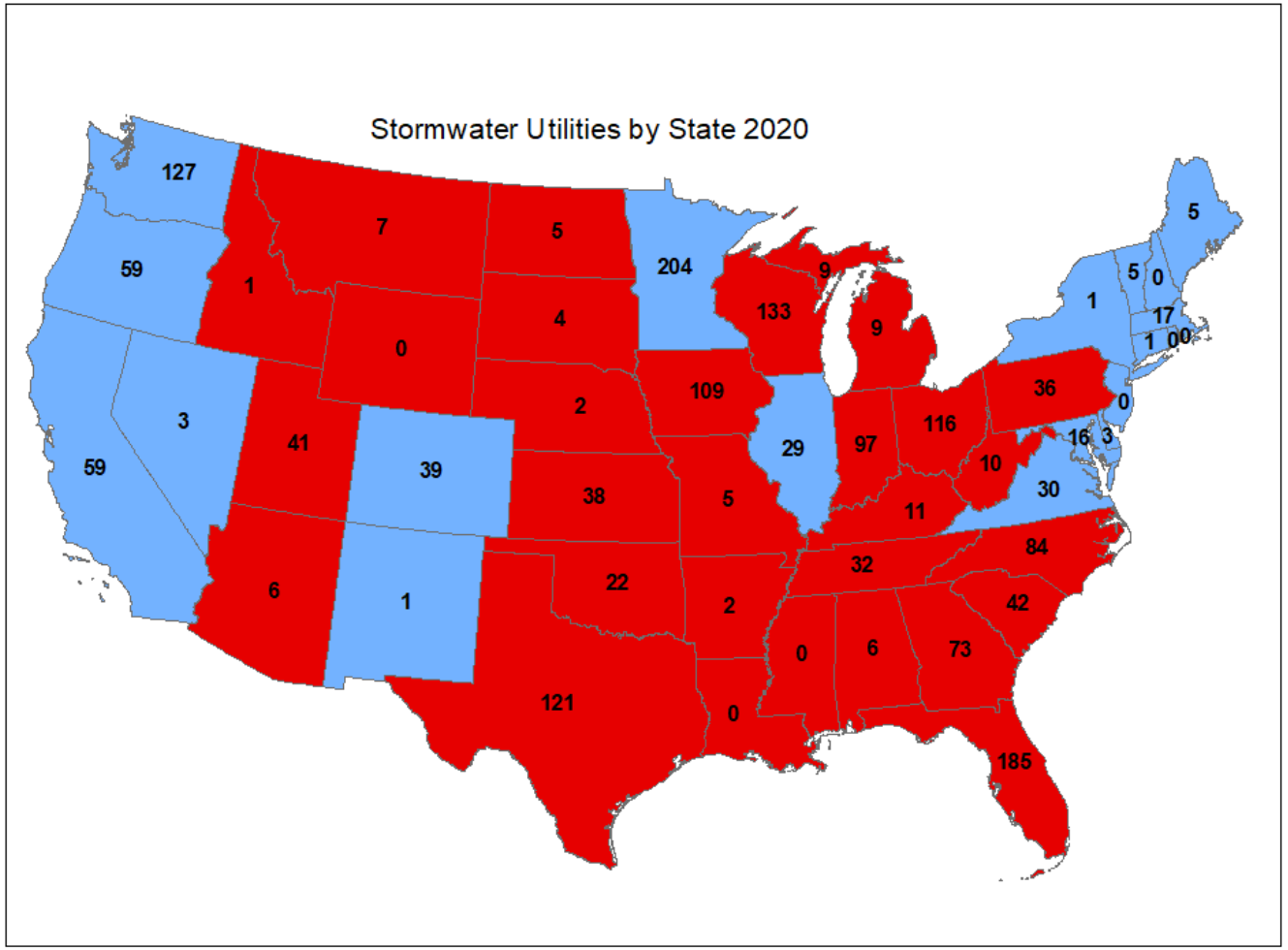
- Stormwater costs would be recovered through sewer rates if no stormwater fee.
- Sewer billing based on water consumption does not correlate to the amount of stormwater runoff from properties.
- A stormwater fee is assessed based on impervious area, which better correlates to amount of stormwater runoff from properties.
- Equitably shifts costs from residential customers to non-residential customers over time, helping to address low-income affordability concerns.

Other Benefits

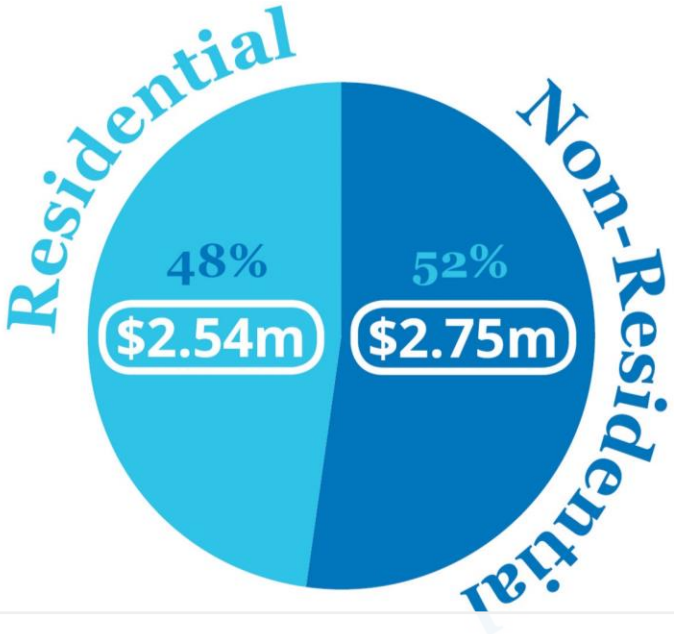
- Provides a dedicated revenue source for regulatory compliance.
- Provides incentive for property owners to implement Green Infrastructure.
- Promotes improved facility maintenance and better management of SW runoff.

Over 1,800 SW programs nationwide

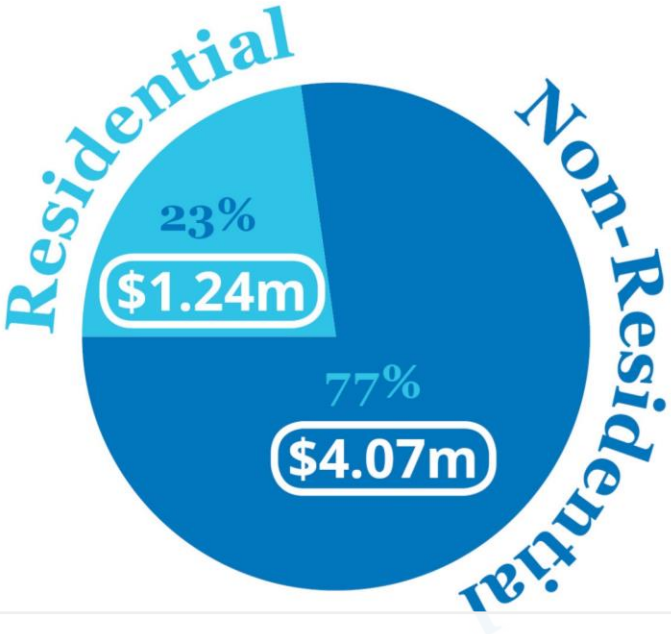
- *Source: W. Kentucky Univ. 2020 Stormwater Utility Survey*



FEE DISTRIBUTION BASED ON WASTEWATER FLOW



FEE DISTRIBUTION BASED ON IMPERVIOUS AREA

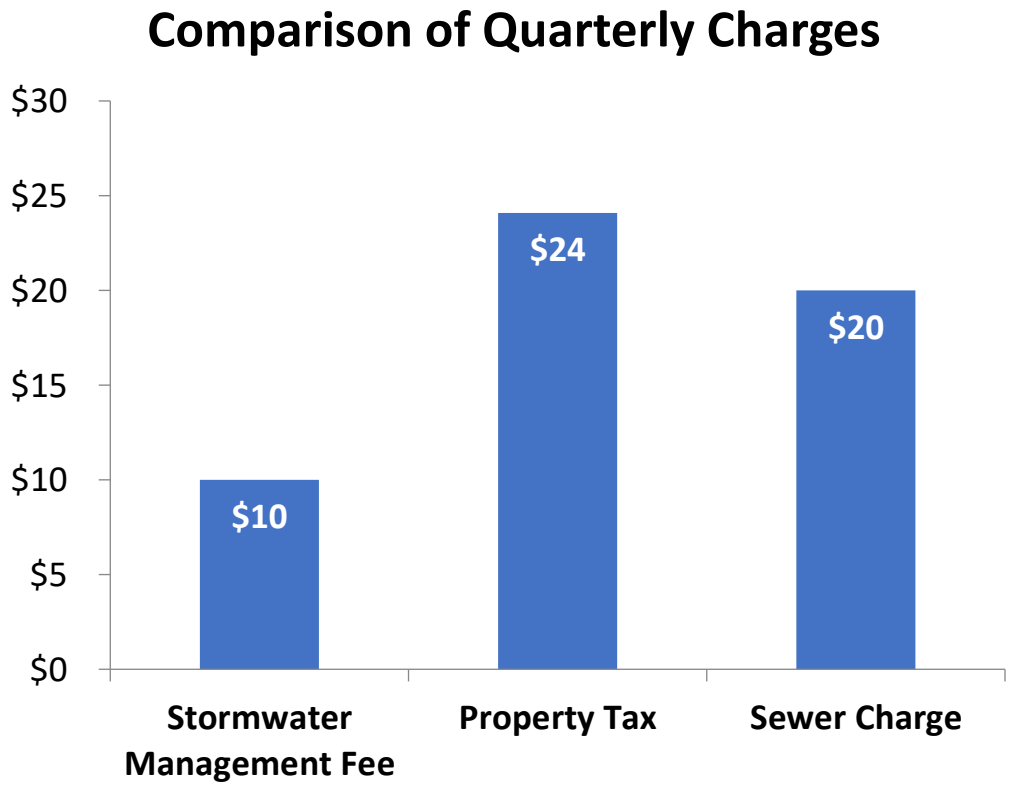


Fee Distribution

With a Stormwater Fee, Residential Customers pay $1.3M less

Residential	Impervious Area (sq.ft)	Assessed Value ($)	Water Total (x1000 gal)
Avg. Value	1,367	72,558	48
Avg. Qtr. Fee	$10	$24	$20
Max.Value	35,441	522,800	912
Max. Qtr. Fee	$275	$174	$385

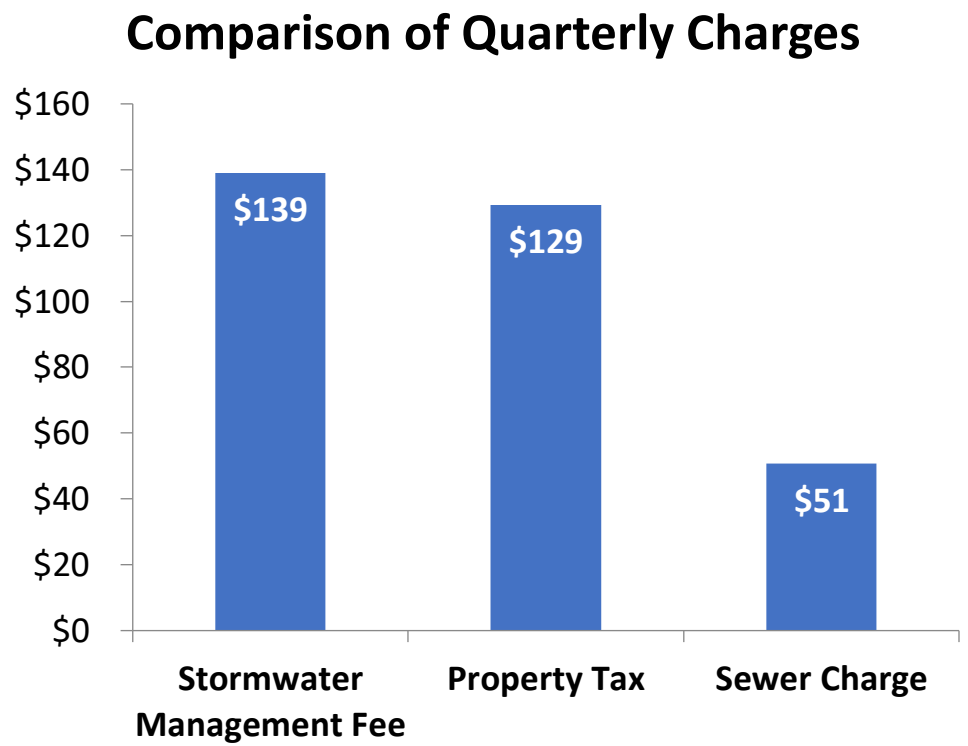
Rates and charges ($4,800,000 annual program)



Comparison of Funding Scenarios

Lancaster's Average Residential Customer

Commercial	Impervious Area (sq.ft)	Assessed Value ($)	Water Total (x1000 gal)
Avg. Value	17,882	389,338	120
Avg. Qtr. Fee	$139	$129	$51
Max.Value	4,246,304	129,942,300	6,749
Max. Qtr. Fee	$32,909	$43,173	$2,851



Rates and charges ($4,800,000 annual program)

Comparison of Funding Scenarios

Lancaster's Average Commercial Customer

Elements of a Successful Process

- **Assessment:** The process by which property owners are informed of the SW Fee assessment/impervious area fee that will appear on their water/sewer bill
- **Credits System**: Property owners can implement stormwater control measures and obtain credits **up to 50% of their total stormwater fee**.
  - Stormwater Control Measures - downspout disconnection, cisterns, rain gardens or bioretention, porous pavement, infiltration basins, trenches, green roofs, and storage basins, as well as credit for implementing educational programs about water
  - ALL customers must contribute to operation & maintenance costs and contribute to the funding of public projects – public green infrastructure project undertaken by the agency
- **Appeal Process:** Property owners can submit an appeal of the SW Fee before the first bill is sent if they believe an error occurred in the calculation of their fee
  - Incorrect parcel
  - Inaccurate property classification (i.e., residential vs. non-residential)
  - Inaccurate impervious area or tier assignment
  - Request reallocation of SW Fee among multiple water accounts on a single parcel.
  - **The Appeal process is not for customers who oppose the stormwater fee. Those appeals should be denied.**

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Targeted Stakeholder Outreach

- Business Community:
  - Chamber of Commerce
  - Commercial
  - Industrial
- Non-profits
- Faith Community
- Neighborhood and Latino Communities
- Landlords
- Environmental groups
- City Council
- County Government
- School District
- Other Media
- Developers
- Realtors
- Parking Authority
- Parking lot owners without water accounts
- **Commonwealth Agencies**

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Thank you

Charlotte Katzenmoyer
charlotte.katzenmoyer@capitalregionwater.com