Community Based Public Private Partnership (CBP3)

Great Lakes & St Lawrence Cities Initiatives

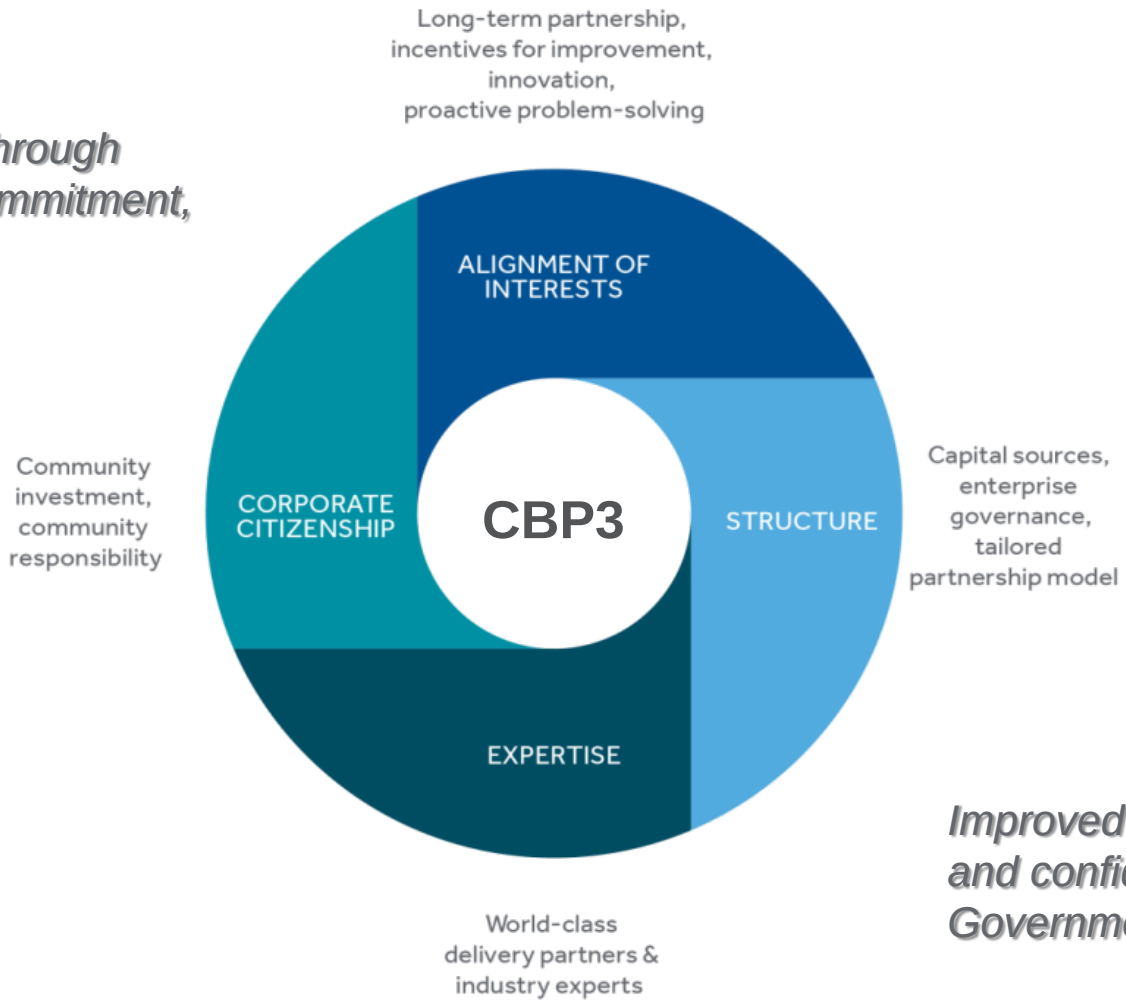
COMMON REASONS FOR PARTNERING

Purpose – Create long-term value by solving the essential problems you can't solve solely on your own.

- More efficient design, construct new (and/or upgrade existing) capital improvements by transferring risk (planning, design, construction cost, financing, certification, management and maintenance, etc.) to private sector
- Access new capital markets for non-essential project financing thus freeing credit capacity for essential programs.
- Save time & costs in project delivery
- Reduce outstanding debt burden by transferring debt obligations and performance accountability to private sector
- Tap scalable capacity, expertise, and resources offered by private sector
- Keep government staff focused on core mission while allowing private sector partner to concentrate their expertise in planning, procurement, project delivery, community outreach, and operations & maintenance
- Create greater connectivity and impact with the community.

COMMUNITY BASED PUBLIC PRIVATE PARTNERSHIP

Greater impact through private sector commitment, investment, and accountability

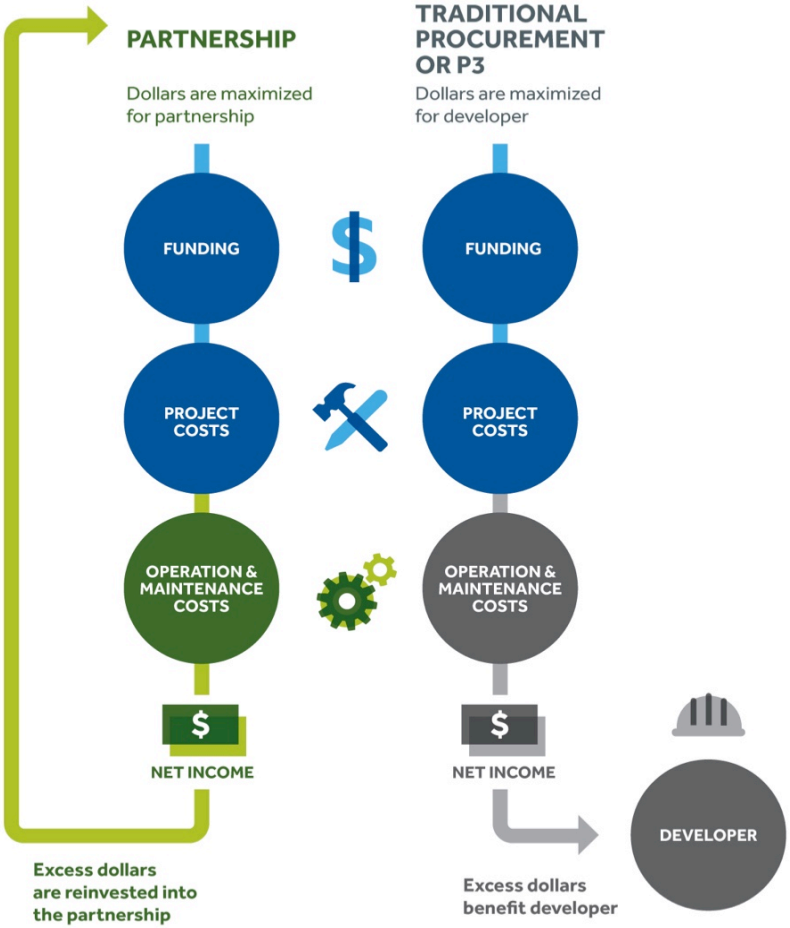


Improved transparency and confidence through Government oversight

INVEST FOR LONG TERM SUSTAINABILITY

Benefit local economic development by creating a market place for a meaningful water quality impact.

- Aggregated vs. Piecemealed approach
- Integrated delivery methodology
- Local Economic Development/Job Creation
- Community Outreach/Educational programs
- Long-term reinvestment program
- Efficiency/Savings reinvested
- Compensation earned through performance and value creation
- Meet Regulatory Compliance requirements



CRITICAL FACTORS

Critical Factor for Government & Rating Agencies	Partnership Solution
Reduction of Deferred Maintenance	Creation of a reinvestment reserve to fund an out-year development program through annual reserve deposits of savings.
Government Control and Priorities	Gov't drives environmental priorities and approaches
Improving local business and private property owner engagement and capacity	A holistic approach to infrastructure that allows an integrated, comprehensive plan and offers a consistent experience to community.
Risk Transfer	Municipality does not provide financial support through subordinate expenses or guarantees etc.
Municipality Maintains Asset Ownership and easement controls.	Title and certification of real assets stays with the Municipality and does not transfer to the SPE in a SCA and Municipality retains easement control and access through the SPE.
Affordability	Stormwater revenue setting and control process remains with the Municipality.

CASE STUDY: PRINCE GEORGE'S COUNTY

- Provided a feasible master delivery plan and cost structure to retrofit and maintain 2,000 acres of long-term regulatory compliance
- The Clean Water Partnership has:
  - Reduced the overall cost of retrofits by 30% to 40%
  - Streamlined the procurement and delivery process
  - Exceeded socio-economic metrics
  - Positioned the County as regional stormwater management leader
  - Obtained innovative financing through a State Revolving Fund loan at 1.9%
- Nationally recognized community based infrastructure program by the White House CEQ and Environmental Protection Agency

PRINCE GEORGE'S COUNTY | CORVIAS SOLUTIONS
CLEAN WATER PARTNERSHIP

PRINCE GEORGE'S COUNTY MARYLAND

Corvias

CREATING A MARKET PLACE FOR SMALL DISADVANTAGED BUSINESSES

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CLEAN WATER PARTNERSHIP

Total CWP Target Class at Project Completion:
$76,242,000

Total CWP Local and Minority Businesses:
$72,431,717

Total CWP Local Expenditures as a Percentage of Target Class Spend:
95%

Economic Impact of Local Expenditures:
$152.1M


PUBLIC SCHOOLS


PONDS


ALTERNATIVE COMPLIANCE


OUTFALLS


ROW/MUNICIPAL

Public-Private Partnerships and Green Infrastructure

by

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Great Lakes & St. Lawrence Cities Initiative Webinar

ECT Environmental Consulting & Technology, Inc.

March 23, 2017

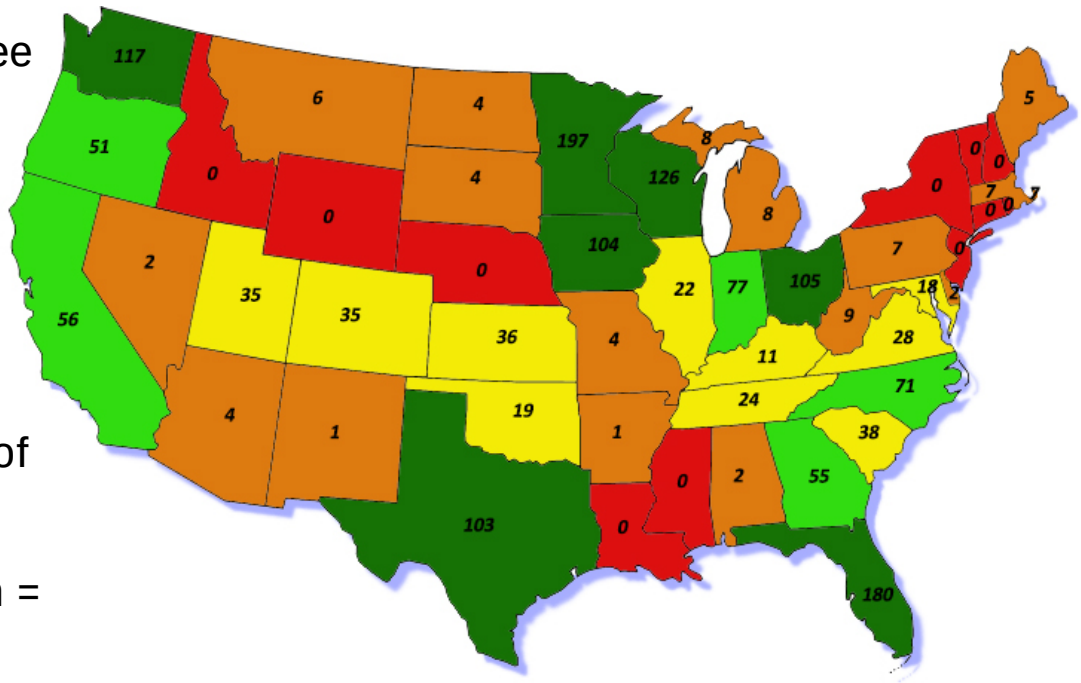
Outline

- Evaluation of CBP3 enablers
  - Storm water utilities
  - P3 enabling legislations
- The new administration and its approach to P3s
- Green infrastructure and its benefits
  - Large-scale versus small-scale
  - Market drivers
  - Market size
  - A decision tree
  - Some recommendations

Enacting a CBP3 – How to Pay Return on Investment

Storm Water Utilities in the United States

- As of 2015, there were over 1500 storm water utilities (SWU) in the country, with an average monthly fee for a single family home of $4.57
- Smallest utility in the country is in Indian Creek village in Florida (population of 88, as of 2010)
- Largest utility in the country is for the city of Los Angeles (population of 3,000,000, as of 2010)
- Average SWU community population = 73,900
- Median SWU community population = 19,200



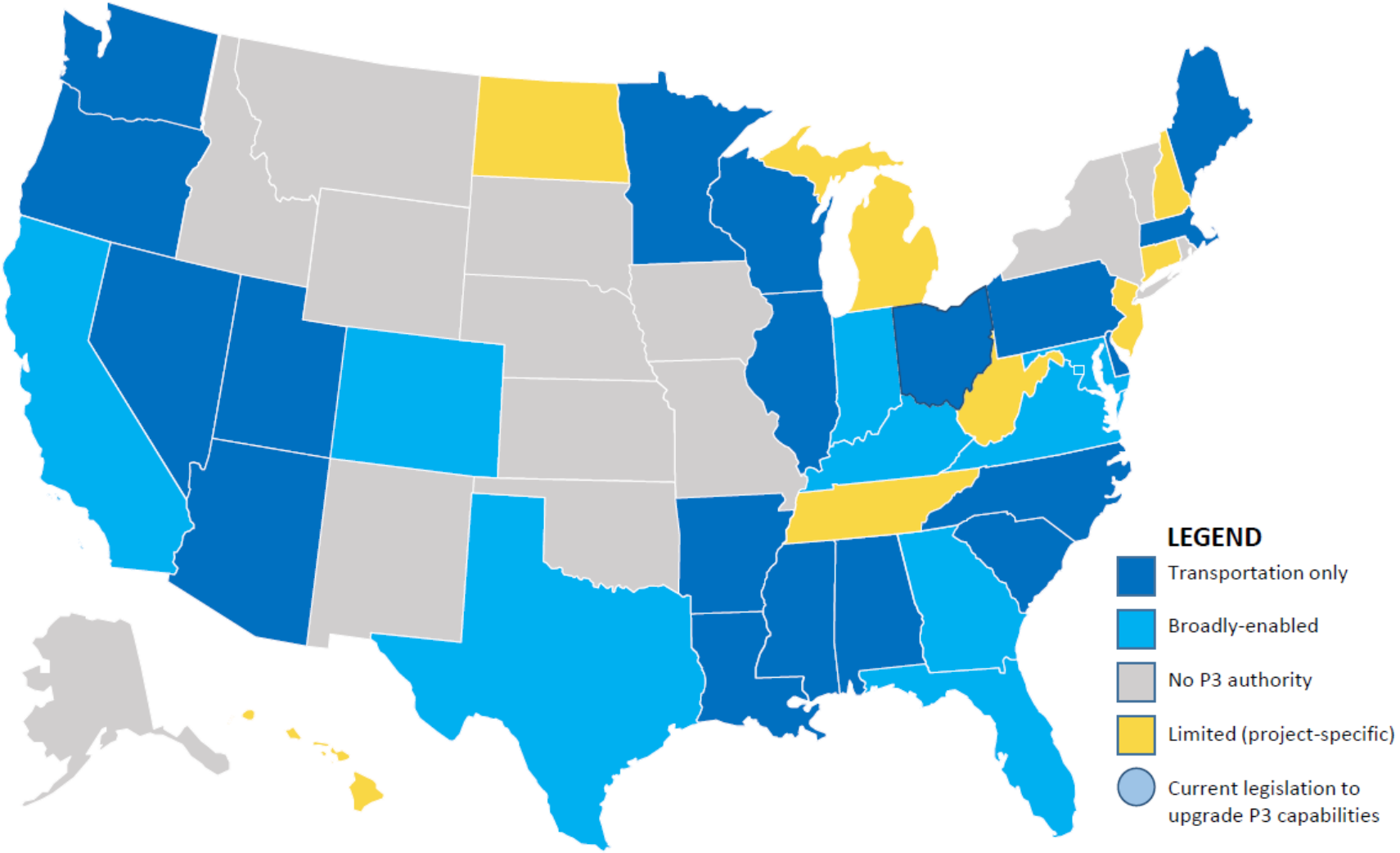
Source: WKU 2016

Top Prospects Based on Storm Water Utility Revenues

- MS4 communities:
  - Ann Arbor
  - Appleton
  - Green Bay
  - Kenosha
- Consortium of communities
- CSO communities:
  - Toledo
  - Fort Wayne
  - Lima
  - Cleveland
  - Milwaukee

Enacting a CBP3 – Your State Legislation

Status of P3 Enabling Legislations



Source: AIAI (Association for the Improvement of American Infrastructure) 2017

Updated: Feb 2017

Public-Private Partnership Statutes by State (as of 2013)

STATE	DESCRIPTION	STATUTE
Michigan	Currently has enabling legislation for diverse public entities	MCL 125.1871
Indiana	Law is focused on "public facilities" that could be used if expanded definition of facilities is read	Ind. Code Ann. §§ 5-23- 1-1 - 5-23-7-2
Illinois	Has many different P3 laws, but all are focused on transportation projects and in some cases, explicitly on a targeted project	605 ILCS § 5/10-802 605 ILCS §
Ohio	State DOT may enter into P3s, but legislation is transportation focused and not broadly applicable	Ohio Rev. Code Ann. § 5501.71
Wisconsin	Law explicitly authorizes state DOT to enter into agreements	Wis. Stat. Ann. § 84.01 (30)
Pennsylvania	Law permits P3s for transportation projects in the commonwealth	Pa. Cons. Stat. 74 §§ 9101 thru 9124
Minnesota	Very narrow legislation focused on road authorities. Very stringent requirements on what can and cannot be built under the aegis of this legislation	Minn. Stat. §§ 160.84 thru 98
New York	Currently no P3 legislation	N/A

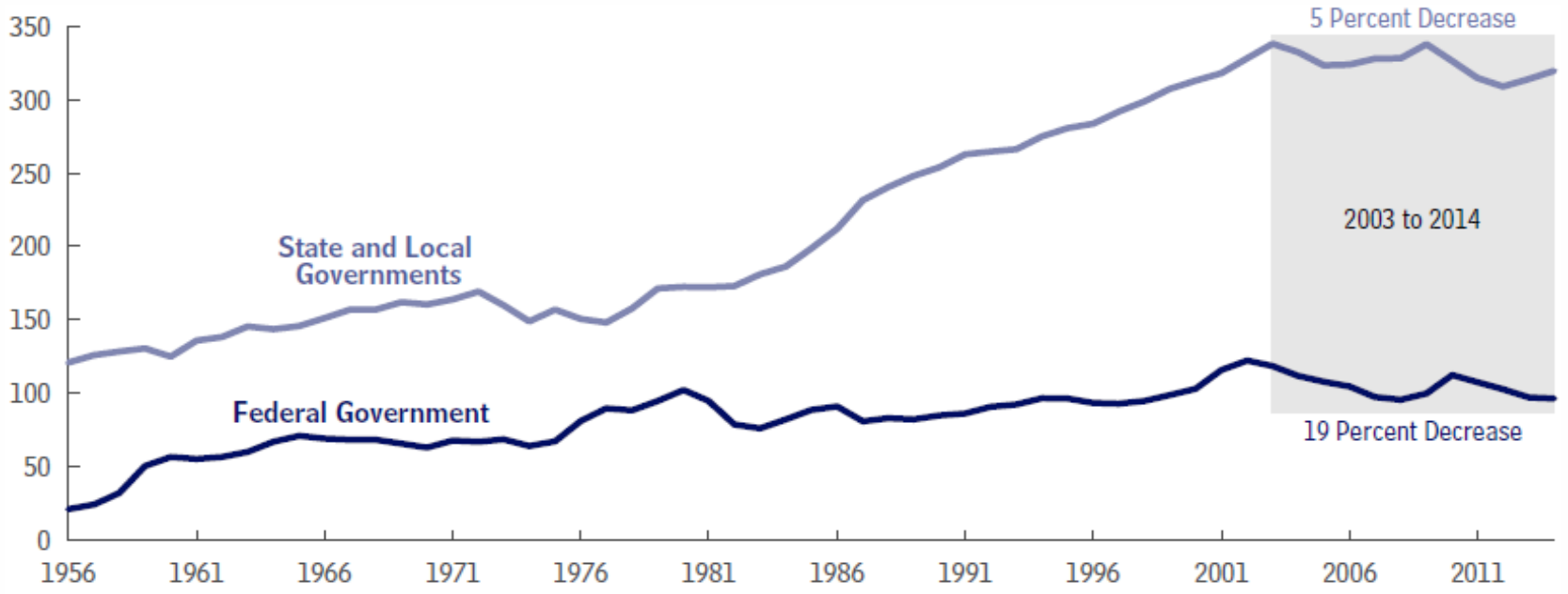
In States Without P3 Statutes, Home Rule Could be Used as a Way to Set-up P3s

STATE	VILLAGE	TOWN	CITY	TOWNSHIP	COUNTY
Ohio	Home Rule	Home Rule	Home Rule	Home Rule if adopted	Home Rule if opted by the county (such as Summit and Cuyahoga counties)
Michigan	Home Rule	Home Rule	Home Rule	Dillon's Rule	Home Rule if opted by the county (such as Macomb and Wayne counties)
Indiana	Home Rule	Home Rule	Home Rule	Dillon's Rule	Home Rule if opted by the county
Illinois	Any municipality with a population over 25,000 is automatically "Home Rule"		Dillon's Rule		Home Rule if adopted (such as Cook county)
New York	Home Rule	Home Rule	Home Rule	Dillon's Rule	Home Rule if opted by the county
Pennsylvania	Dillon's Rule	Dillon's Rule	Home Rule	Home Rule	Home Rule if opted by the county (such as Alleghany, Delaware, Erie, Lackawanna, Lehigh, Luzerne, and Northampton counties)
Wisconsin	Home Rule	Dillon's Rule	Home Rule	Dillon's Rule	Home Rule if opted by the county
Minnesota	Dillon's Rule	Home Rule	Home Rule	Dillon's Rule	Home Rule if opted by the county (such as Ramsey County)

New Administration and P3s

Investment Gap is Growing

Public Spending on Transportation and Water Infrastructure, by Level of Government, 1956 to 2014



Source: Congressional Budget Office based on data from the Office of Management and Budget, the Census Bureau, and the Bureau of Economic Analysis.

Note: Dollar amounts are adjusted to remove the effects of inflation using price indexes for government spending that measure the prices of materials and other inputs used to build, operate, and maintain transportation and water infrastructure.

New Administration - What to expect

- **A trillion dollar plan**
  - 1:5 leverage
- **Tax Credits ($167 billion)**
  - Lower required equity returns, making P3 more competitive
  - Address viability gap for rural and poorer communities
- **Accelerated delivery**
  - Streamline approval processes by reducing regulations
- **Legislation for federal projects**

Green Infrastructure

Rain Gardens

Trees

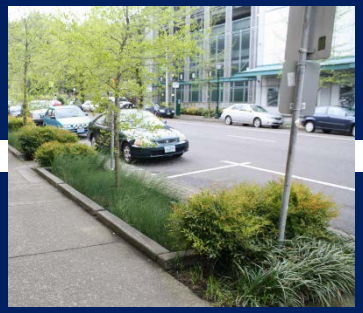
Greenways, Park Space

Bioswales

Wetlands

Green Roofs

Landscaping or Soil Amendments



Green Streets, Alleys, Parking

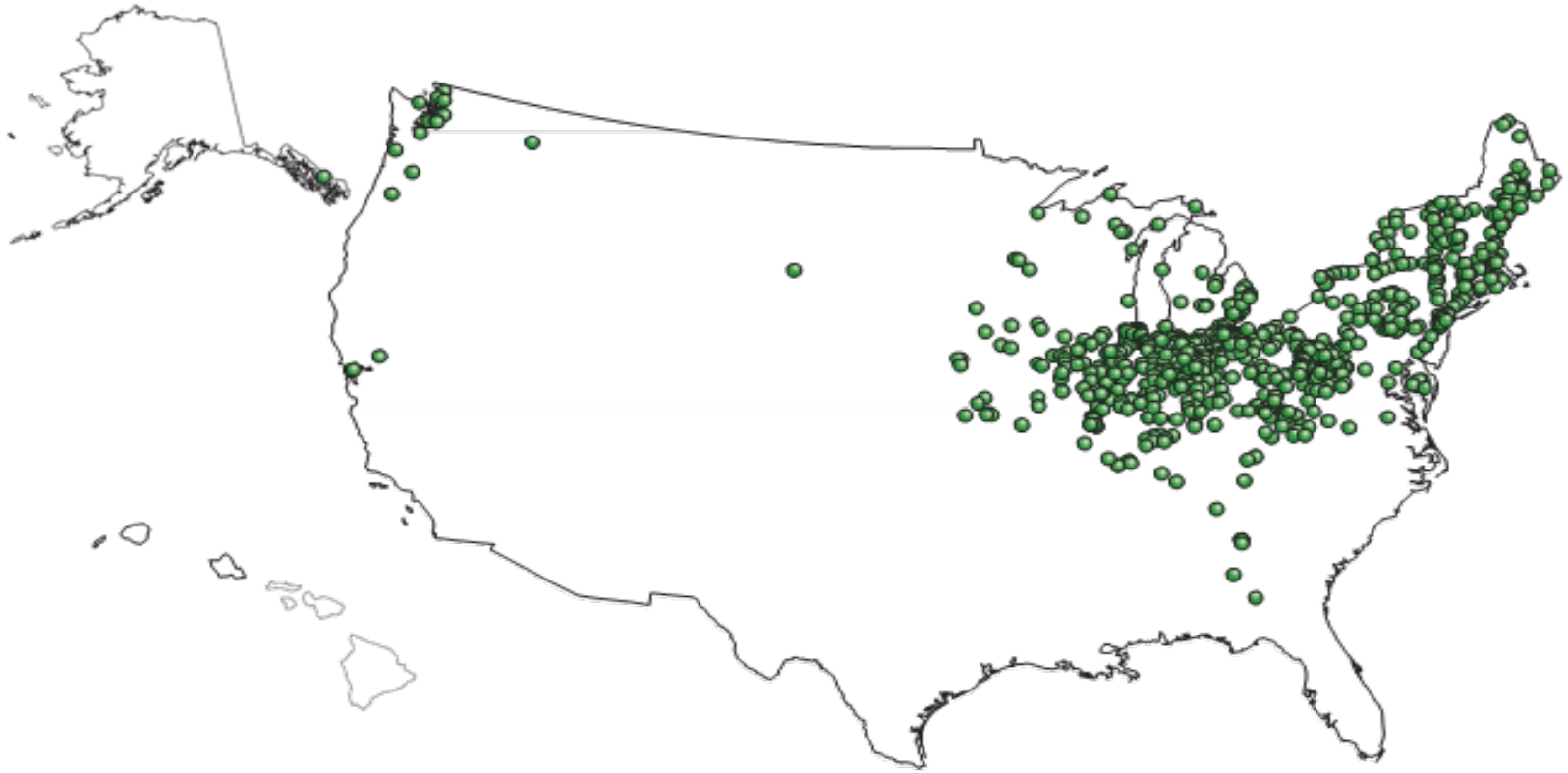
Rainwater Catchment

Porous Pavement

Benefits of Green Infrastructure

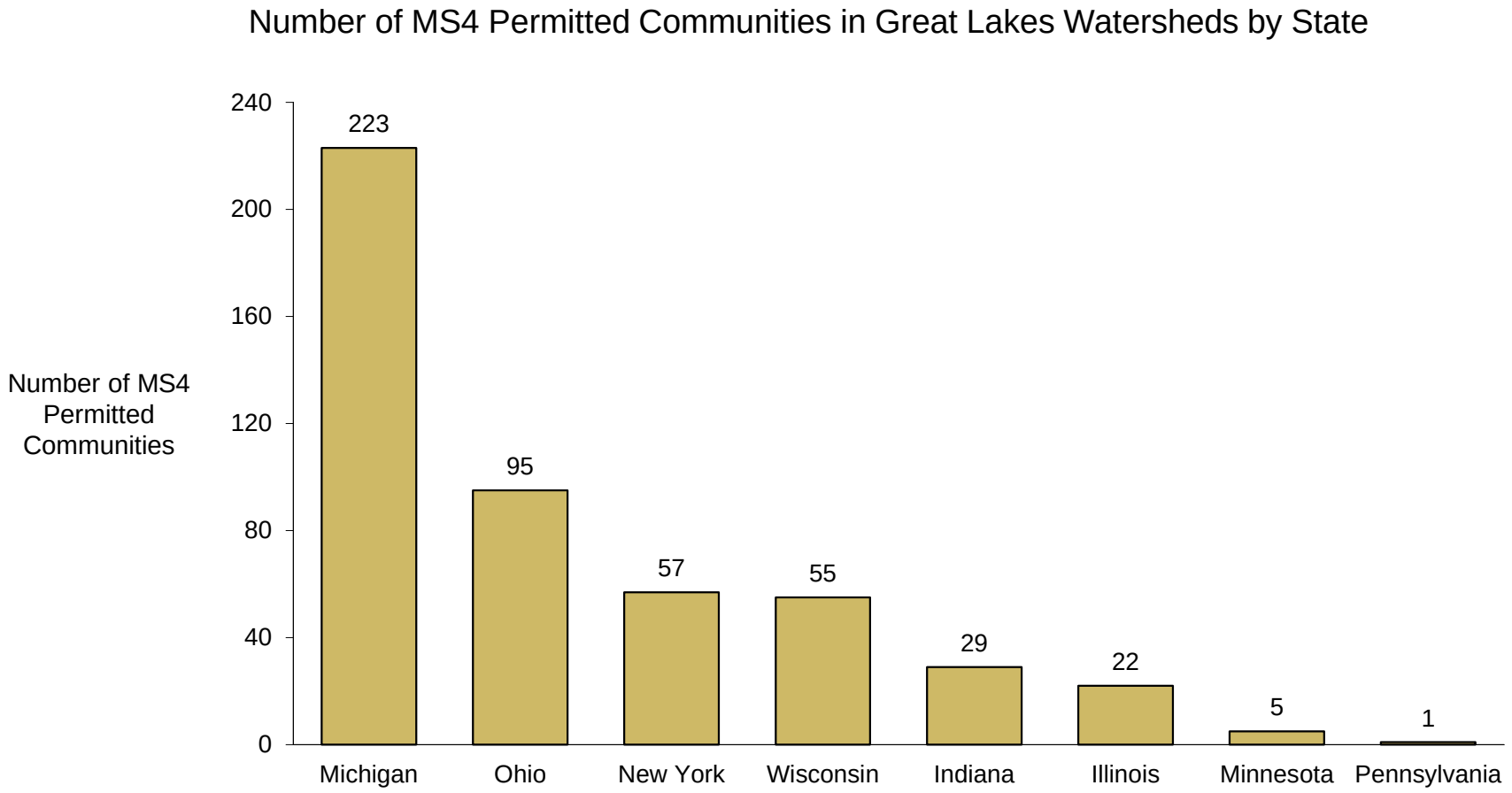
- Lower costs, higher savings
  - Reduced water bills
  - Stormwater fee credits and other financial incentives
  - Reduced infrastructure costs
  - Energy savings
  - Reduced flooding costs
- Other social benefits
  - Increased mental health and worker productivity
  - Reduced crime
  - Contribute to climate resiliency

As of 2001, 850 CSO Permits Covering 772 Communities



United States Environmental Protection Agency Report to Congress on Implementation and Enforcement of the CSO Control Policy, January 29 2002

MS4 Permitted Communities Across the Basin



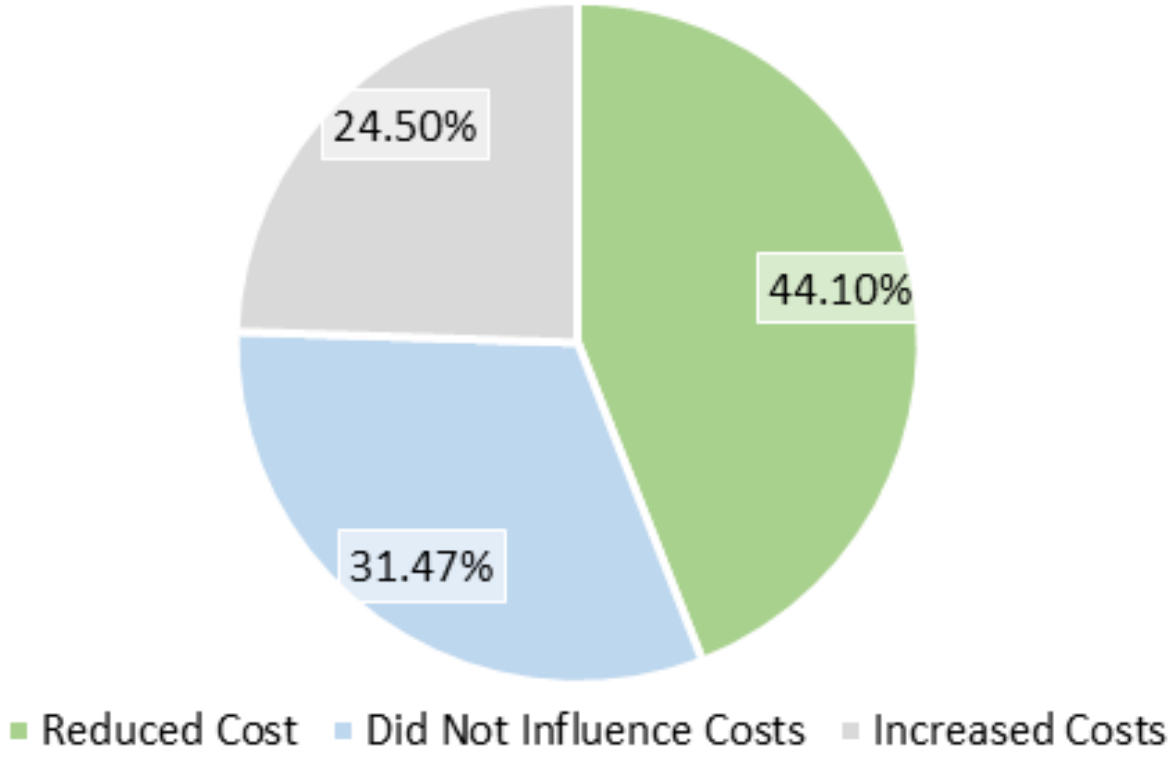
Great Lakes Information Network, Indiana State Map, Michigan Department of Environmental Quality, Ohio Environmental Protection Agency, Pennsylvania Department of Environmental Protection, New York Department of Environmental Conservation

MS4s or CSOs – Retrofits is where the action is

- New development is less than 1% of existing development
- Major initiatives:
  - Philadelphia: 10,000 impervious acres to be retrofitted
  - District of Columbia:
    - 415 impervious acres to be retrofitted – MS4
    - $100 Mil of GI in CSS areas – CSO
  - Prince George's County, MD: 8,000 impervious acres to be retrofitted – MS4
  - Montgomery County, MD: 4,300 impervious acres to be retrofitted – MS4

Is Green Infrastructure Cheaper?

Benefits of Using Small-Scale Green Infrastructure Over Gray Infrastructure



(ASLA 2011)

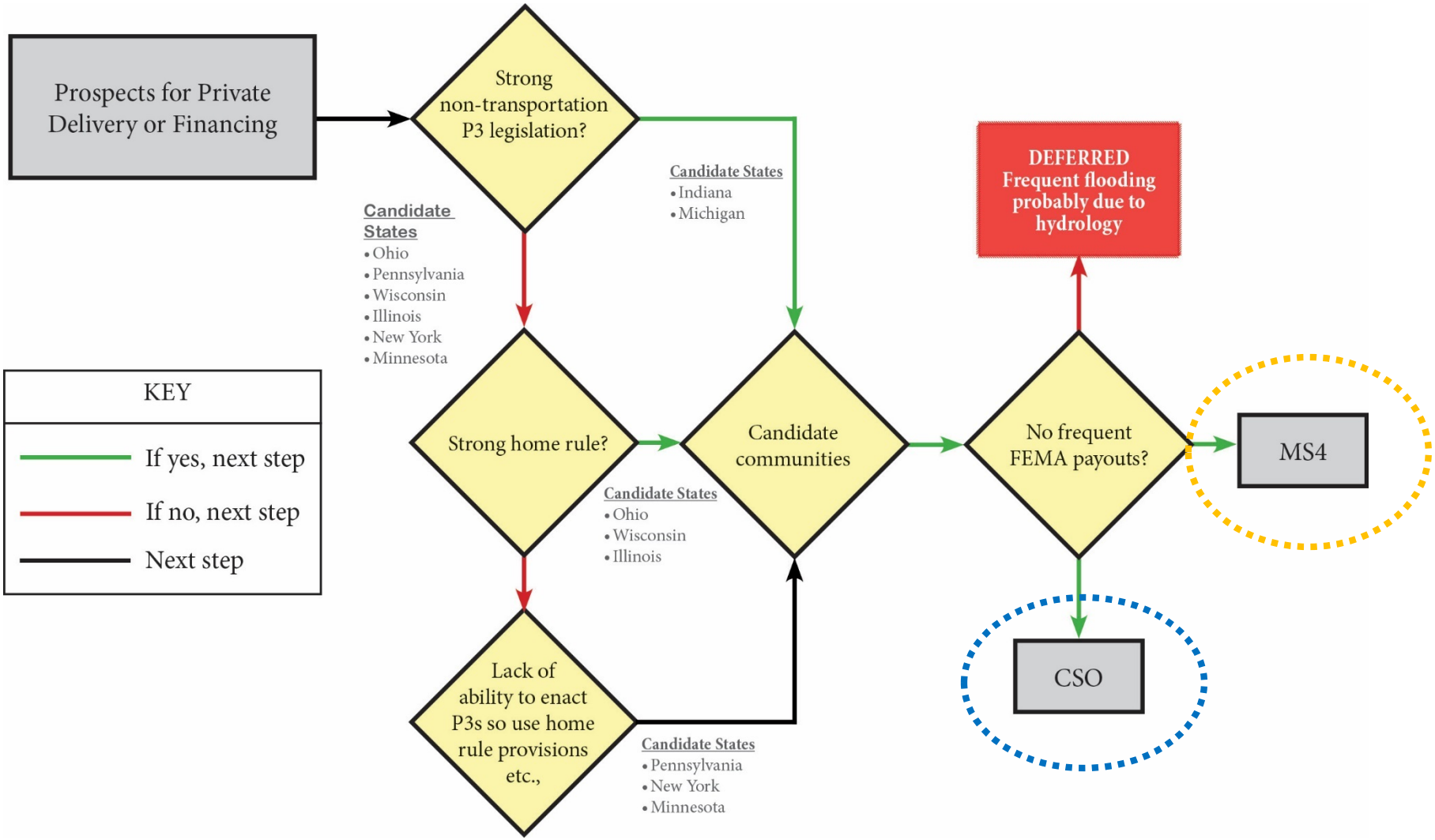
Scale Benefits - Large-Scale Use of Green Infrastructure

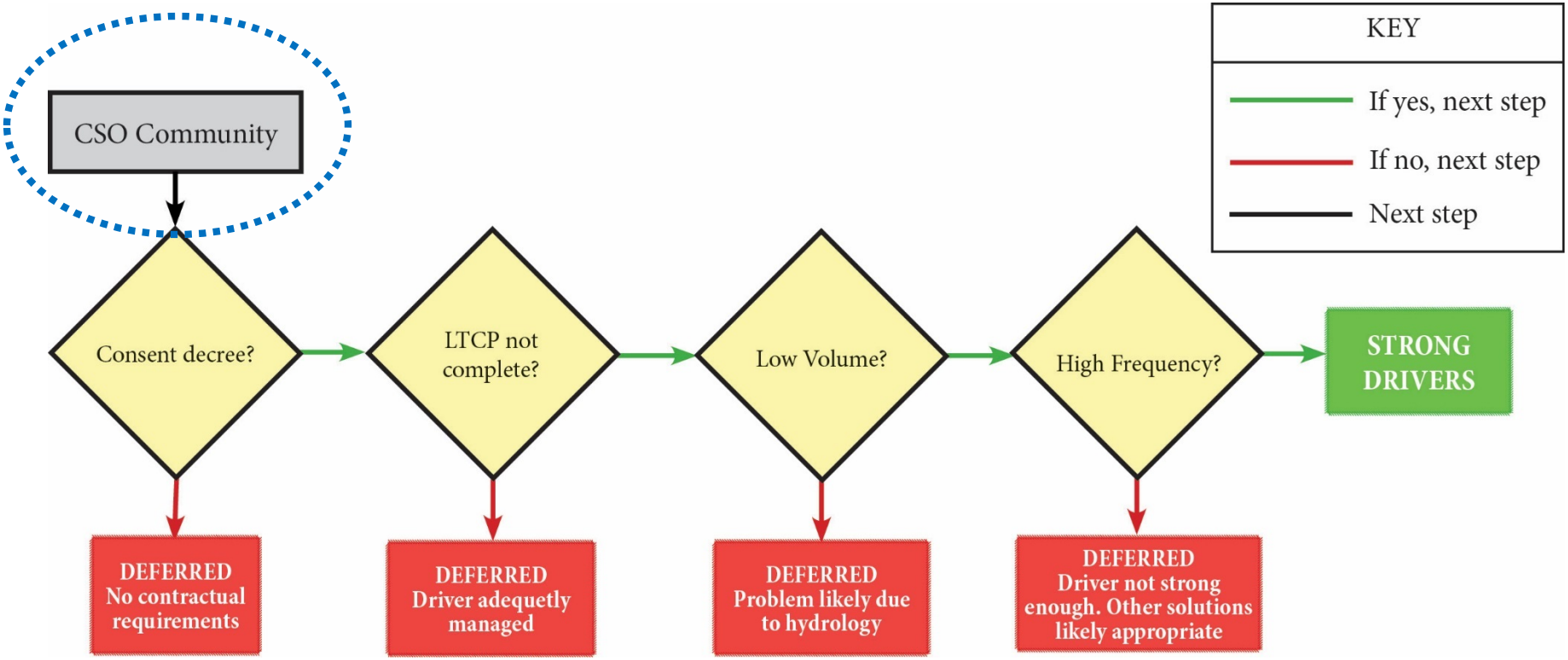
MEASURE	MILWAUKEE	NEW YORK CITY	PHILADELPHIA	PORTLAND (OREGON)
Stormwater volume detained	14.8 billion gallons annually	12.1 billion gallons annually	19.9 billion gallons annually	116 million gallons annually
Scale of GI investment	$1.3 billion	$1.5 billion	$1.2 billion committed (total anticipated $3 billion through the addition of leveraged activities)	$9 million in GI (additional $48 over four years)
Total savings by the use of GI (dollars)	$850 million (calculated from $2.15 billion cost of gray infrastructure)	$8.5 billion	$5.6 billion over 25 years	$224 million (maintenance and repair)
Savings-to-cost ratio	.65	5.67	3.35	3.92

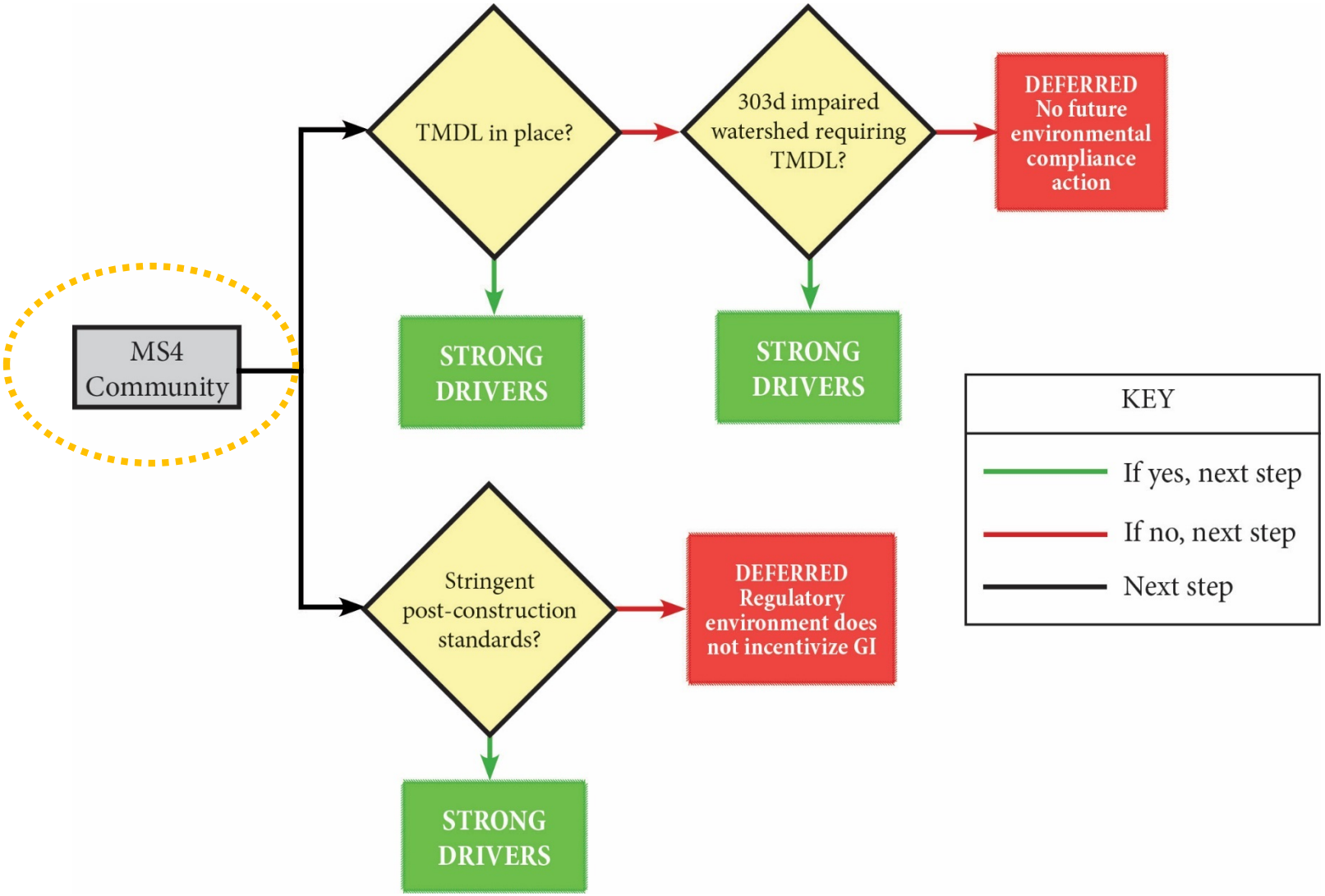
Market Size of Investments in Green Infrastructure

Seven Drivers of Market Size

- Leadership
- Financial ability
- Enabling legislation
- Regulatory drivers
- Efficient and cheaper project delivery
- Performance-based risk transfer
- Situational constraints


Prospects for Private Delivery or Financing
Strong non-transportation P3 legislation?
Candidate States
• Ohio
• Pennsylvania
• Wisconsin
• Illinois
• New York
• Minnesota
Candidate States
• Indiana
• Michigan
DEFERRED
Frequent flooding probably due to hydrology
KEY
If yes, next step
If no, next step
Next step
Strong home rule?
Candidate communities
No frequent FEMA payouts?
MS4
CSO
Candidate States
• Ohio
• Wisconsin
• Illinois
Lack of ability to enact P3s so use home rule provisions etc.,
Candidate States
• Pennsylvania
• New York
• Minnesota


KEY
If yes, next step
If no, next step
Next step
CSO Community
Consent decree?
LTCP not complete?
Low Volume?
High Frequency?
STRONG DRIVERS
DEFERRED No contractual requirements
DEFERRED Driver adequetly managed
DEFERRED Problem likely due to hydrology
DEFERRED Driver not strong enough. Other solutions likely appropriate


MS4 Community
TMDL in place?
303d impaired watershed requiring TMDL?
DEFERRED No future environmental compliance action
STRONG DRIVERS
STRONG DRIVERS
Stringent post-construction standards?
DEFERRED Regulatory environment does not incentivize GI
STRONG DRIVERS
KEY
If yes, next step
If no, next step
Next step

Market Size of Green Infrastructure in the Great Lakes Basin

- In states of Ohio, Minnesota, Wisconsin, Illinois, and Indiana: A third of utility revenues from the can support over a billion dollars investment
  - > $50 Mil => $912 Million market
  - Between $10 and $50 Mil => $225 Million market
- Caution - Market valuation models: future is the same as the past
- New York, Pennsylvania, and Michigan are at a significant disadvantage

Summary

- Storm water utilities help
- P3 enabling legislations are very helpful
- New administration seems motivated to promote P3s
- Market size of GI investment in Great Lakes is pretty substantial
  - Think of its impact on algal blooms
- Private finance will continue to emerge as a key way to fund water sector investment gap
- Large-scale aggregation has economies of scale and other benefits that are hard to ignore

Some recommendations

- Adoption of stormwater utilities
- Consistent P3 legislations across all states
- Provide guidance to USEPA for continued focus on green infrastructure
- Assessment of water infrastructure needs
- Consistent green infrastructure ordinances

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