

White Paper Overview

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White Paper Overview

- Focus on stormwater sector
- Covers “market-based” approaches
 - trading, incentives, offsets, mitigation, etc.
- Intended to be a strawman document

White Paper Overview

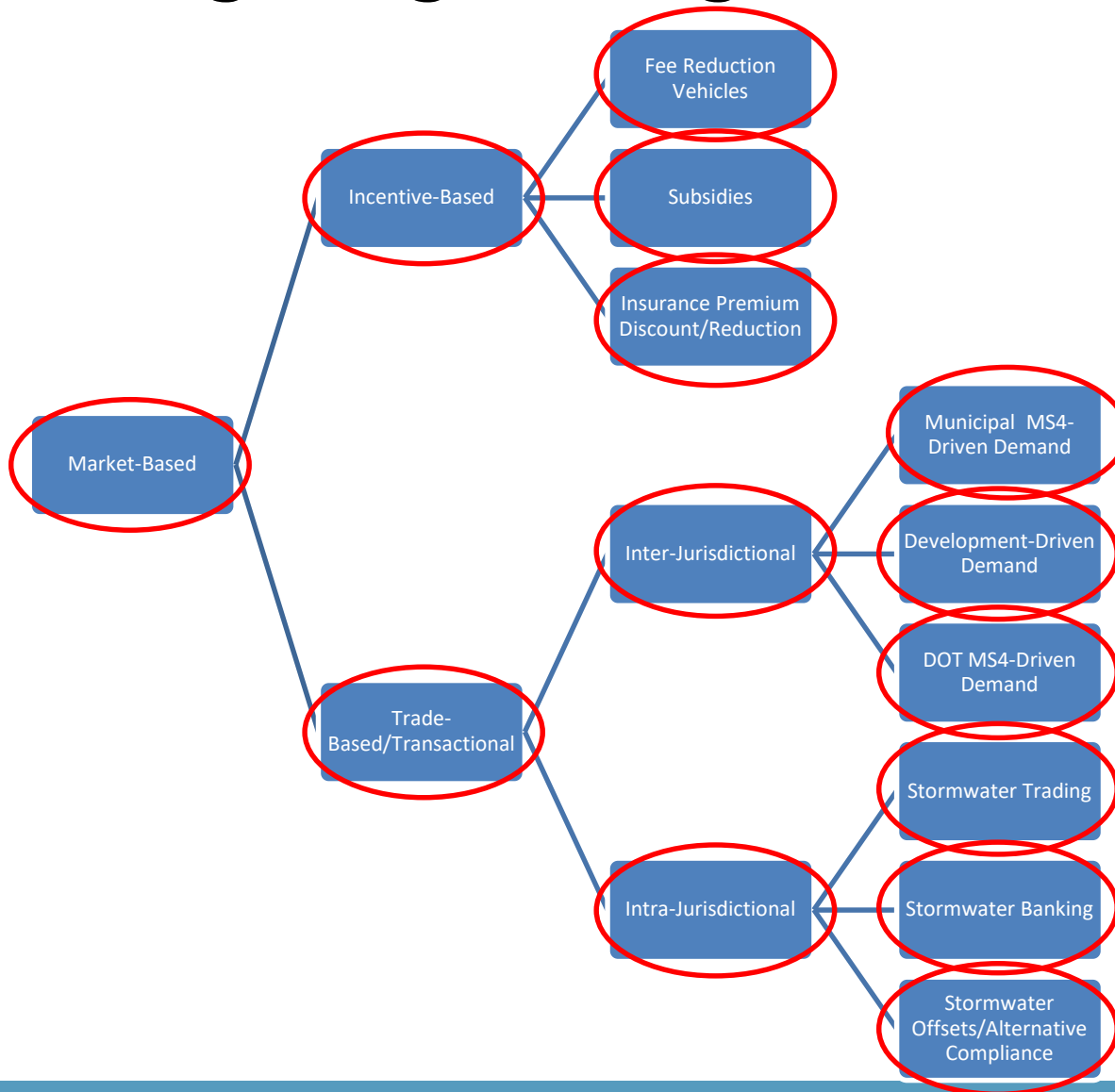
Areas Covered

- Introduction to stormwater management
- Navigating a “Jungle of Terms”
- Defining the universe of approaches
- Drivers for investment
- Policy challenges/barriers
- Programmatic frameworks

Session Outline

- Present information on topics
- Provide discussion questions
- Work in small/large groups
- Report out / discussion

Topic Taxonomy: Navigating a Jungle of Terms



Defining the Universe of Approaches

Market-Based Approaches

- Not limited to “free market” approaches
- “Focuses on a wide array of frameworks that relay on elements inspired by the business of private sector”
 - Incentive-based
 - Trade-based/transactional

Defining the Universe of Approaches

Incentive-based approaches

- Fee Reduction Vehicles
 - Credits, rebates, discounts
- Subsidies
 - Direct payment, cost-based threshold
- Insurance Premium Discounts/Reduction
 - Hypothetical at this point

Defining the Universe of Approaches

Trade-Based / Transactional Approaches

- Inter-jurisdictional vs. Intra-jurisdictional
- Trading
- Mitigation
- Offset
- Fee-In-Lieu

Defining the Universe of Approaches

Trade-based / transactional approaches

- Inter-jurisdictional trading, mitigation and offsets
 - Municipal MS4-driven demand
 - Chesapeake Bay region
 - DOT MS4-driven demand
 - New Jersey, Virginia
 - Development-driven demand

Defining the Universe of Approaches

Trade-based / transactional approaches

- Intra-jurisdictional trading, banking, and offsets
 - Stormwater trading
 - DOEE, Chattanooga
 - Stormwater banking
 - Stormwater offsets and Fee-in-Lieu
 - Alternative compliance (San Diego et al)

Navigating a Jungle of Terms / Defining the Universe of Approaches

Discussion Questions

1. Do the categories presented in this section **reflect the full universe of options** for incentive-based and trading/transaction-based programs for stormwater infrastructure investment? If not, **what categories have been left out?**
2. **Are the categories** presented in this section **appropriate?** If not, what other categorical framework should be used in the sector?
3. Should the phrase “**market-based**” be used to capture the wide swath of incentive and trading programs in the stormwater sector? If not, what should this umbrella term be?
4. Does the use of the term “**incentive**” to refer to non-transactional approaches to green stormwater infrastructure investment?
5. **What term is most commonly used for a stormwater fee reduction?** Rebate? Discount? Credit? What should be used in order to avoid confusion in the future? **Does it matter?**

Drivers for Investment

- Regulatory
 - NPDES
 - MS4
 - CSO
 - TMDL
- Non-regulatory
 - Resilience
 - Climate change, sea level rise, sustainability
 - Social/Economic
 - Economic development, job creation

Drivers for Investment

Discussion Questions

1. How significant are regulatory and non-regulatory drivers?
2. Which regulatory drivers are best suited for a market-based program? Why?
3. Which non-regulatory drivers are best suited to drive interest in a market-based program? Why?

Policy Challenges/Barriers

Incentive-based approaches

- Set the “right” rebate or subsidy
- Tax codes
- Upfront capital
- Maintenance responsibility

Policy Challenges/Barriers

- Trading/transactional-based approaches
 - Regulatory drivers
 - Programmatic costs/complexity
 - Trading currency
 - BMP efficacy and regulatory credit

Policy Challenges/Barriers

- Trading/transactional-based approaches
 - Baseline of current program performance
 - Credit life
 - Local impacts
 - Holistic stormwater management

Policy Challenges/Barriers

Incentive-Based Approaches

Discussion Questions

- Set the “right” rebate or subsidy
 - Is the rebate/subsidy high enough to move the needle?
- Tax code impacts
 - Is a stormwater infrastructure investment considered a betterment (taxable event)?
 - Other?

Policy Challenges/Barriers

Incentive-Based Approaches

Discussion Questions

- Limited property owner upfront capital
 - How can capital be generated for onsite investments?
- Ownership of maintenance responsibility
 - If a maintenance agreement requiring the property owner is part of an incentive-based program, what assurance does the public entity have that adequate maintenance will be provided?

Policy Challenges/Barriers

Trading/Transactional-Based Approaches

Discussion Questions

- Regulatory drivers
 - Is the lack of numeric targets and lack of enforcement limit market-based approaches?
- Programmatic costs and complexity
 - Do administrative costs and programmatic complexities create barriers for market-based approaches, especially for small- and mid-sized communities?

Policy Challenges/Barriers

Trading/Transactional-Based Approaches

Discussion Questions

- Trading currency
 - Does differing pollutants of interest in stormwater programs create a barrier to large-scale trading?
- BMP efficacy and regulatory credit
 - Does a reliance on technology-based performance standards limit stormwater trading?

Policy Challenges/Barriers

Trading/Transactional-Based Approaches

Discussion Questions

- Program baseline
 - What is an appropriate baseline for a stormwater program?
- Credit life/duration
 - What should be the lifetime of credits generated in a stormwater trading program?

Policy Challenges/Barriers

Trading/Transactional-Based Approaches

Discussion Questions

- Local impacts
 - What is an appropriate percentage of a program's regulatory obligation that can be purchased outside of a jurisdiction or a watershed through credits while still respecting needs of local waters and the community?

- Holistic stormwater management
 - A least-cost option in a trading program may lead to unintended consequences of focusing on a few downstream solutions rather than many high-value BMPs – how do we ensure holistic investments?

Programmatic Frameworks

Market structure

- Exchange
 - A platform for trades to occur between multiple parties in an “open market” forum.
- Bi-lateral
 - A negotiation approach is one in which a credit purchaser faces multiple credit generators, and the purchaser must decide which generator to utilize.
- Clearinghouse
 - Clearinghouses are similar to a retail store, as the approach is based upon an entity (usually a public entity) paying for pollutant reductions and then selling credits at a fixed price. By eliminating transaction costs associated with a bi-lateral trade, overall costs may be reduced.
- Sole-Source offset
 - Sole-source offsets, which have been previously presented, is not trade-based, but allows for pollutant reductions to be gained off-site to compensate for pollutant generation on another site.

Programmatic Frameworks

Administration

- Municipal
 - Public led oversight
 - Public bears all costs, can be reduced through regional program
- Public/Private
 - Public-private partnership model
 - Can be more efficient, private sector bears more costs/risks
- Third-Party
 - Usually NGO-led, Pay-For-Success/Pay-For-Performance model

Programmatic Frameworks

Discussion Questions

- Market structure
 - Which market structure(s) is (are) best suited to the stormwater sector?
- Programmatic administration
 - Is there an administrative party better or best suited to the stormwater sector?



Thank you

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