

STORMWATER CREDIT TRADING: A PUBLIC-PRIVATE PARTNERSHIP (P3) OPTION TO ACCELERATE DELIVERY OF GREEN STORMWATER INFRASTRUCTURE (GSI)



Recommendations to Help Meet The GSI Vision Of The Northeast Ohio Regional Sewer District (NEORSD)

The NEORSD has already committed substantial resources to the use of GSI in improving their operations. This commitment has positioned the NEORSD to build upon its experience of building over \$60 Million large GSI projects. Currently, seven different but closely coordinated program areas focus on GSI implementation that help meet the consent decree needs.

Market-based delivery and finance options can more effectively deliver GSI within NEORSD’s service area in Greater Cleveland.

The RISC Team recommends considering stormwater credit trading as a preferred option for the Greater Cleveland region*. Other relevant options analyzed included Community-based public-private partnerships (CBP3s) and Environmental Impact Bonds (EIB).

Stormwater credit trading can lower the overall cost of managing stormwater while spurring investments in the community, create jobs, and resilient infrastructure

A credit trading program can enable property owners subject to an impervious cover fee to cost effectively meet a portion of their requirements by buying stormwater credits from property owners better able to provide low cost stormwater capture. By doing so, property owners are provided flexibility from “on site rules” in a manner that also creates equal or better water quality outcomes than expected from simple on-site retention.

Equally important, the program helps distribute the ecological, social, and human health co-benefits of GSI throughout a watershed while capturing and treating more stormwater. This is done by allowing a larger number of smaller, privately owned Stormwater Control Measures (SCMs) to manage larger areas in comparison to a smaller number of larger municipally operate/maintained SCMs.

A spectrum of benefits of stormwater credit trading setup

Stormwater credit trading is well-suited for application in the NEORSD’s service area because:

1. It is an extension of NEORSD’s current impervious cover fee program.
2. NEORSD and communities retain ownership, governance & decision authority that guides the framework.
3. It strengthens investments in areas of lower economic growth, and thus addresses environmental justice concerns.
4. The costs of such a program are largely borne by developers.
5. It is a flexible framework that will allow access to private properties in the service area.
6. It accelerates delivery of a large number of projects instead of delay due to lack of upfront capital.
7. Workforce development, economic development, and other socially driven goals can be achieved if the framework is designed appropriately.



Next steps to successfully execute a trading framework:

1. Develop a public visioning process to identify goals.
2. Establish a baseline to ascertain the current GSI expenditure.
3. Define the revenue stream and the purchase guarantee.
4. Estimate the private demand for credits.
5. Establish guidelines for GSI credit generation.
6. Connect with Washington, D.C., another city with a trading framework.
7. Evaluate/develop internal capacity to manage program.

FULL BENEFITS	
Performance-based fee structure	Provides long-term socio-economic benefits
Long-term operation & maintenance included	Potentially reduces fee increases
Private partner assumes risk for construction, financing & maintenance (EIB may include or exclude maintenance at borrower’s option)	Enables economies of scale & program efficiency
Shifts costs to developers	Target most cost-effective, high-impact private parcels
PARTIAL BENEFITS	
Existing statutory authority	Opportunity for NEORSD member community to assess GI
Fully scalable solution	
Flexible public commitment	
Exceeds NEORSD’s 20% local business utilization requirements	
NO BENEFITS	
	Provides data collection on GI effectiveness & includes latest innovative practices

*NEORSD has no authorship of the RISC report and considers its recommendations as third-party input.

Proposed Framework For The NEORSD's Stormwater Credit Trading

The proposed framework is a variation of the NEORSD's Title V existing credit system

In the NEORSD's service area, GSI can further be incentivized by combining the existing Title V fee and credit system with an ability to sell excess stormwater management capacity to other regulated buyers who cannot meet their stormwater retention requirements on-site.

What stays the same

- Title V fee structure:** Following the proposed framework, the NEORSD will not need to change its fee structure.
- Revenues for the NEORSD:** The NEORSD's policies allow fee credits to 100% of a property owner's total stormwater fee. A trading scheme would encourage parcel owners who could inexpensively reduce impervious surface area or otherwise control stormwater on their parcel to build excess green infrastructure, with credit purchases by other private property owners repaying the green infrastructure investment above the NEORSD's fee credits. This would result in additional green infrastructure installation in its service area without reducing the NEORSD's fee revenues beyond what is currently contemplated in Title V.

What changes are suggested

- Low-Impact Development Ordinances for new developments:** The driver behind a credit trading market is the cost of compliance for certain properties. Because raising the Title V fees are infeasible, the cost that the NEORSD can increase is paid by new developers in meeting the LID ordinances that the communities could pass.
- An in-lieu fee option:** This is necessary in a credit trading market because regulated developers who choose to go off-site need to know that, should there be no off-site retention available for purchase, they can achieve compliance through paying a fee to their regulator. This fee would be set at the amortized price per credit that the NEORSD can build SCMs.
- Purchase Guarantee:** The NEORSD needs to set aside a small amount of money that guarantees purchase of credits and ensures that the market has enough liquidity. A onetime appropriation of \$10 million would be sufficient to start the program. Additional funds could be added annually with money that the NEORSD would have otherwise spent on its own green infrastructure SCMs.
- Optional:** To increase liquidity in the market, the NEORSD can deploy a number of strategies:
 - Build SCMs on public land and sell them as credits to increase the number of available credits in the market,
 - Buy credits to ensure a "floor price" below which credits do not fall, and
 - Enable multi-year credits.

Credit trading specifics

- Credit denomination:** A credit corresponds to a certain amount of retention capacity supplied by a SCM over a certain period of time. Depending on their preference, the NEORSD may choose a credit in terms of volume of capture in gallons (e.g. 1 credit = 3,000 gallons of retention capacity) or on a spatial basis (e.g., 1 credit = 1 inch of stormwater retention capacity over 500 square feet of impervious area).
- Credits should be tradable throughout the NEORSD's service area:** This allows the market to take advantage of price discrepancies between various watersheds and recognizes that all of the NEORSD watersheds and sub-watersheds ultimately feed into Lake Erie.
- Allow for credit banking for purchasers:** Credit banking occurs when credits are not used immediately after they are generated, but are rather stored for later use (either by credit generator, credit purchaser, or a third party). Banking credits allows purchasers to view credit purchases in an apples-to-apples way with on-site SCMs. However, for credit generators, it is important to not allow banking of credits beyond a reasonable window of maintenance (every three years, for example).

Project partners:



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