Stormwater Credit Trading 101: Advice for Permit Writers and their Permittees

Problem Statement

As many cities in the United States continue to experience growth, the increase in stormwater runoff associated with impermeable surfaces has presented challenges for many municipal water utilities trying to keep pace with increasingly stringent Clean Water Act (CWA) permitting requirements.

To address these challenges, municipalities across the United States are implementing strict stormwater management requirements for new and existing properties throughout their jurisdictions. These requirements mandate a certain volume of stormwater be managed on those properties. The goal of these programs is to reduce the volume of stormwater entering existing storm- and wastewater infrastructure, which improves overall water quality at the point of discharge from municipal sewer systems.

While in some cases the costs of stormwater best management practices (BMPs) can be high, one of the key obstacles facing building owners is the opportunity costs related to siting BMPs. For example, roof space for high value amenities such as pools, bars, and decks, or underground space for parking can be limited if that same space is used instead for BMPs. Further, the optimal location of a BMP from a watershed benefit standpoint might not be where development is occurring. As such, cities and states throughout the country are exploring the development of innovative market-based mechanisms that would allow private sector developers to finance offsite projects with the sale of credits, which are used by property owners to meet their regulatory obligations under new stormwater management standards. Similar to cap and trade markets for carbon dioxide emissions, the advent of a credit against these standards creates a marketplace that drives competition and ultimately provides the lowest-cost solutions to stormwater mitigation, thereby reducing costs of compliance.

EFAB Mission Fit

EFAB's mission is to explore ways to lower costs and increase investments in environmental protection. Environmental markets are often designed to achieve both facets of this mission. Stormwater credit trading is a new and exciting tool that CWA permittees might want to have at their disposal. With thoughtful market design, it may be possible for those communities to drive low cost compliance, incentivize and increase economic development by offering private developers an alternative compliance pathway, and drive investment in environmental services to traditionally underserved/underinvested neighborhoods. EFAB may be able to provide guidance and advice on how to structure these markets so that they can achieve these goals.

EPA Mission Fit

EPA's mission is to protect the environment through the enforcement of the nation's environmental regulations, scientific research, and public education. Often this means working with communities to determine the best pathways to achieve compliance in a cost-effective manner. In a February 6, 2019 memo¹ Assistant Administrator Ross reiterated EPA's support for market-based water quality programs, including water quality trading and offsets, and encouraged regional offices to find opportunities to promote market-based programs within its regulatory mandates.

Type of EFAB Engagement

EFAB could assist EPA through a written report that would provide guidance to permit writers and their permittees on how to implement stormwater credit trading. This may include market design, incentives design, market administration, among others.

¹ https://www.epa.gov/sites/production/files/2019-02/documents/trading-policy-memo-2019.pdf