Rural and Urban Watersheds Working Together
Stormwater – Optional BMP Program Overview

Innovating solutions for water quality requirements

**Background**
The offsite BMP program for the City of Wichita provides a new option for development to meet post-construction water quality requirements under the city’s current stormwater permit (MS-4). The offsite program complies with all regulations, increases water quality, and lowers costs for development and business owners. It is the first of its kind, and its continued success will help to establish a model for a regional approach to water quality management. The benefit to this outcome-based approach is in its design: the program provides advantages for the watershed, economic profits for the community, and a way forward to address water quality on a regional level.

**Building a successful team:**
This program in the City of Wichita is a product of collaboration between private developers, the city, and state and federal regulators. Spearheaded by the city’s Stormwater Advisory Board, the BMP program’s technical and regulatory work is coordinated by city staff by contracting with Kansas State University. The program works directly with the Kansas Department of Health and Environment. Guidance, approval and funding were provided by the Wichita City Council.

**Watershed Benefits:**
The offsite program is designed to remove at least twice the amount of sediment as would be achieved by onsite BMPs, which benefits water quality in the Arkansas River.

By using the offsite BMP program, developers realize significant economic benefits because they can avoid expensive installations of hydrodynamic separators (HDS) or other onsite BMPs. Developers save more than just upfront costs as well: the estimated lifecycle cost of an HDS is $1,100 for maintenance, inspections, and replacement. In comparison, by choosing to participate in the offsite program, developers have the option to pay an annual fee of $19/acre in lieu of HDS installation.

The benefits to this program extend to state and local regulators because it empowers a regional water quality management program that establishes voluntary water quality controls on agricultural lands that would traditionally go largely unregulated, especially in regard to runoff and sediment removal.

**Current Program Status for City of Wichita**

- **127 developments, comprising 509 acres have enrolled**
- **496 offsite, no-till acres enrolled on farms**
- **$2.85 million in upfront cost savings for private development**
- **40% development and businesses save more than $200k annually**
- **Enough acres enrolled to ensure over seven years of “cushion”**
- **Offsite sediment load reduced by an estimated 1589 tons**
- **Offsite program began generating revenue in 2018**
Since the first permits were issued in September 2016, the team has been working to establish offsite no-till acreage, as well as track and report program outcomes.

The photos above show some traditional urban solutions to reduce sediment. A hydrodynamic separator (center) is a typical but expensive method to reduce sediment in urban development areas. The offsite BMP program substitutes the use of on-farm solutions, like no-till, a BMP that reduces significantly more sediment upstream for a fraction of the cost.

Part of the program’s success has been due to support from farmers in the Little Arkansas River Watershed. To date, the City of Wichita reported a total of 127 developments, comprising 509 acres participating in the Offsite BMP program. These acres would produce an estimated 204 tons of sediment. To offset these development acres, 496.7 acres of upstream farmland was converted to no-till.

As reported in July 2019 by the City of Wichita, offsite sediment load was reduced by an estimated 1589 tons. As a result of this program, developers and businesses in Wichita have been able to save $2.8 million in upfront costs, and report $209,000 in ongoing annual savings.

**Looking to the future**

The offsite BMP program in Wichita will continue to grow and evolve. Success of this program hinges on participation by farmers in the Little Arkansas watershed, located upstream from Wichita. As the program forges ahead, careful monitoring and accurate reporting is necessary to establish actual costs and savings for all involved. Local engagement and detailed accounting of sediment removal and other water quality impacts such as atrazine use is a key requirement for city, state and federal regulators. Ensuring that the water quality benefit of the offsite

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