



Lake Lenexa Spillway and Dam

NPDES ANNUAL REPORT

CITY OF LENEXA

**YEAR FOUR
OCTOBER 1, 2007 – SEPTEMBER 30, 2008**

City of Lenexa NPDES Annual Report **Year 3: October 1, 2007 – September 30, 2008**

A. Permittee Information and Reporting Period

City of Lenexa

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Lenexa, KS 66215-2882

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Kansas Permit Number: M-KS34-SU01

Reporting Period: Annual Report Year 4, covers activities from October 1, 2007 to September 30, 2008.

B. Executive Summary

The City of Lenexa's Watershed Management Program, known as "Rain to Recreation", has been nationally recognized in various publications, conferences and awards programs. An inaugural member of EPA's Clean Water Partner's for the 21st Century, this program has become a national model for watershed management. Lenexa's program was featured as a case study in EPA's Managing Wet Weather with Green Infrastructure, Municipal Handbook (September 2008) and presented at the 2008 National ASLA conference in Philadelphia, PA.

The watershed program is an active partner with Johnson County, Mid America Regional Council (MARC), and various State and Federal agencies, and is a leader in BMP design and implementation.

Although the city received its NPDES Phase II permit in October 2004, the watershed program has been in place since 2000 and many of the requirements under Phase II have already been implemented in Lenexa. The City of Lenexa's approach is "compliance through commitment" and this commitment has resulted in quality programs that are continually being refined.

Aspects of the program that appeared especially effective at reducing pollutants in stormwater discharge:

In permit year 4, the City's Water Quality Specialist and Erosion and Sediment Control Inspector have emphasized thorough plan review, effective communication, and coordination with contractors. The Water Quality Specialist obtained Certified Professional in Erosion and Sediment Control (CPESC) certification to enhance plan review efficiency. The result has been a noticeable increase in ESC BMPs including the use of silt fence J-hooks. The presence of the inspector in the field on a day to day basis, increased communication, and the consistency of enforcement has increased compliance among contractors and reduced the amount of sediment entering the storm drain system.

In 2008, the City revised the Stormwater Management Regulations to include a requirement for long term inspection and maintenance of BMPs. The City also hired a full time BMP Inspector to facilitate the BMP construction and inspection process. The result has been an increase in internal and external technical assistance, and better maintained BMPs. The BMP Inspector has also received training in native plant establishment and maintenance, which enhances technical assistance capabilities. The BMP Inspector is currently coordinating with the Watershed Division Green Crew to ensure appropriate maintenance for all City owned BMPs. Proper establishment and maintenance of “green” stormwater infrastructure results in increased infiltration, nutrient uptake and pollutant load reduction.

Aspects of the program that provided unsatisfactory results:

Lenexa’s Watershed Program is still relatively new, as compared to other City operations. Watershed staff continue to integrate into existing design, plan review, and inspection processes. Internal communications among divisions remains a constant challenge that does not always yield satisfactory results. It will take time and patience to fully implement all Phase II elements into City operations. Although communication remains a challenge, the concepts of green infrastructure and environmental sustainability are gaining in popularity.

The most successful parts of the program:

The City of Lenexa had the foresight to form a stormwater utility in 2000. In addition, citizens have twice approved a 1/8 cent sales tax (by 78% margin) to support stormwater projects and the City Council implemented a “system capital development” charge with the premise of growth paying for growth.

The Watershed Program also sponsors an annual water festival, Waterfest, in the summer of each year. This has been a great way to reach our citizens and keep them up to date on the programs achievements. In addition, the City of Lenexa Watershed Program has a dedicated webpage: www.raintorecreation.org which provides continually updated information to our citizens regarding the water quality, best management practices and project status.

The City of Lenexa has also partners with Johnson County Stormwater and Mid America Regional Council (MARC). These partnerships allow the City to reach the greatest number of citizens in our educational efforts. It also leverages staff time and city dollars by tapping talent and resources throughout the metropolitan area. In 2008, Lenexa was recognized by MARC as a model for sustainable initiatives. **See attached MARC Annual Report.**

The Watershed Program continues to focus on public outreach, education, and involvement. In 2008, a full time Watershed Outreach and Education Specialist was hired to take ownership of public outreach and involvement activities.

Lenexa’s Post Construction Stormwater Management Program continues to provide regional leadership in BMP design, construction, and maintenance. During Year 4, 17

post construction BMPs were implemented in Lenexa. These BMPs included bio-retention cells, extended wet detention basins, native swales, and rain gardens. Lenexa continues to share lessons learned regionally by participating on the local APWA BMP and Water Resources committees.

The most challenging parts of the program:

The most challenging parts of the program remains managing and measuring behavior change and monitoring water quality. Our education and outreach program uses a variety of ways to reach our citizens: brochures, website, and newsletter articles, as well as neighborhood meetings and participation in festivals. The City conducts a survey every two years in order to assess citizens' opinions on a variety of issues. According to a recent survey (ETC 2008), Lenexa's citizens rate the Rain to Recreation Program as a metro leader. The new Watershed Outreach and Education Specialist will be initiating a new citizen survey in 2009. The results of this survey will be used to guide future outreach and public involvement activities.

Monitoring the effect of the incorporation of stormwater quality BMPs is a costly endeavor and we will be seeking partners to share that cost. A Water Quality Specialist was hired in 2006 to develop a monitoring program for the City. Currently, Lenexa is partnering with the Johnson County Stormwater Program, Kansas State University, and Kansas University to conduct BMP monitoring. Lenexa obtained Johnson County Stormwater Management Advisory Council (SMAC) funding to monitor the efficiency of constructed forebays, wetlands, bio-retention cell, and porous pavement parking lot. Monitoring results for these projects will be submitted to KDHE in the next annual report.

In 2007, the Watershed Management Division initiated a voluntary biological monitoring program to assess the long term health of our streams. **See the attached biological monitoring report.**