

City of Lexington Stormwater Management Infrastructure Project

The Central Shenandoah Planning District Commission (CSPDC) executed the City of Lexington Stormwater Management Infrastructure Project to help the City establish GIS data representing existing stormwater management infrastructure and enhance maintenance efforts. This project received funding from the Virginia Water Quality Improvement Fund provided by the Virginia Department of Conservation and Recreation (DCR) via grant number WQIF-2010-P10, and was conducted from January 2013 to July 2013. The project consisted of three related activities to achieve project goals, which included:

1. Develop GIS data representing existing stormwater management infrastructure,
2. Identify, locate, and assess existing stormwater management system outfalls, and
3. Provide the City with a BMP assessment protocol/checklist and train City staff in its application.

GIS data representing the City's existing stormwater management infrastructure was developed using hard-copy data as a basis. The hard-copy data used as a basis for the GIS data consisted of hand-drawn sketches of infrastructure on tax maps maintained by City staff. These initial data were verified and enhanced using aerial photos where possible. Where feasible, data were further enhanced by ground truthing during other project activities. The City was provided with a data CD containing all developed GIS data and map files.

In conjunction with the GIS data development, system outfalls were identified, located, and assessed. Outfalls in this exercise were defined as points in the system where concentrated stormwater flow enters waters of the U.S. Outfalls were assessed using an approach based on the assessment protocol used in Task #3. Assessment results were included in the attribute data for each outfall, along with photo(s) of the outfall. Field notes collected during the assessments were provided to the City along with the GIS data.



Finally, the City was provided with a protocol in the form of a checklist suitable for use in assessing the condition of existing stormwater management BMPs. This protocol was based on a similar protocol used by another municipal government to assess BMPs. In July 2013, CSPDC staff conducted a field exercise in which about eight City staff were trained in the use of the protocol and interpretation of results. The project has produced data that the City can use and build upon going forward to inform all programs related to stormwater management, enhance its infrastructure maintenance efforts, and protect water quality in the City.