



MAPPING THE RAINFALL EVENT FOR STORMWATER QUALITY CONTROL

Report Number: K-TRAN-KU-03-1

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RESEARCH

Introduction

Stormwater runoff from transportation facilities and urban areas can contain significant concentrations of suspended solids, metals, and oil and grease. In some cases, best management practices (BMPs) are required for treatment of this contaminated runoff. Current Center for Watershed Protection (CWP) guidelines suggest that BMPs be designed to treat 90% of the annual runoff. A survey of state BMP design manuals shows that many states are adopting the 90% runoff guideline.

Project Objective

The objective of this study was to determine the daily rainfall depth that should be used for sizing BMPs in Kansas.

Project Description

This report presents two methods for determining this rainfall depth: (a) the 90th percentile daily rainfall and (b) the 90% volume daily rainfall. Records for 623 raingages in and within 100 miles of Kansas were analyzed to determine the design rainfall event using these two methods.

Project Results

Results are presented as contour maps and maps showing the design depths for all Kansas counties.

Report Information

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