



Kansas Water Pollution Control Revolving Loan Fund

**FINDING OF NO SIGNIFICANT IMPACT**

To: **All Interested Government Agencies and Public Groups**

In accordance with procedures for implementing the Kansas Water Pollution Control Revolving Loan Fund Act (K.S.A. 65-3321 to 65-3329, K.A.R. 28-16-110 to 28-16-138 effective May 29, 1989 and K.A.R. 28-16-137 effective October 26, 1989, and T-28-16-137 amended October 17, 1989, and the Kansas Environmental Review Procedure for the Kansas Water Pollution Control Revolving Loan Program dated February 2003), an environmental review has been performed on the proposed agency action below:

Project Applicant: **University of Kansas**

SRF Project No.: **C20 1945 01**  
Green Infrastructure / Non-Point Source Pollution Control Project  
Permeable Pavement Retrofit Parking Lot 54 Project

Project Total: \$700,000  
Loan Amount: \$450,000  
Principal Forgiveness: \$450,000

The Draft Update to the Final State Fiscal Year 2012 Intended Use Plan scheduled a low interest Kansas Water Pollution Control Revolving Fund (KWPCRF) loan for this project. The entire loan amount dedicated to this project is expected to come from federal source KWPCRF funds allocated to the State of Kansas.

This project will implement green infrastructure/nonpoint source pollution control practices consisting primarily of a pervious concrete pavement system to replace an existing asphalt parking lot, and the installation of rain gardens, bioswales, and vegetated areas within and adjacent to the parking lot.

**Project Location, Description, and Purpose**

The project is located on the University of Kansas Campus at 1501 Irving Hill Road, Lawrence, KS 66045. It is within the Lower Kansas River Watershed, HUC 10270104, and is more specifically located northwest of the intersection of Irving Hill Road and Naismith Drive.

The proposed project includes the reconstruction of Parking Lot 54 (approximately 75,000 square feet) located on the University of Kansas campus with permeable (porous) concrete pavement. The project also plans to convert existing islands within the parking lot and adjacent green spaces to a series of rain gardens and bioswales to be planted with native vegetation.

The Lower Kansas River Watershed Restoration and Protection Strategy (WRAPS) watershed plan identifies excessive Total Maximum Daily Loads (TMDL) for "biology" in the Kansas River at Lawrence and the Lower Kansas River, to which the project area ultimately drains. Nonpoint sources from urban areas of Lawrence, including the KU campus, contribute to these loads. The pervious pavement, bio-swales and rain gardens proposed in this project will contribute to reducing phosphorous and sediment loads consistent with the Lower Kansas River WRAPS plan. The project will also reduce or essentially eliminate discharges of other, non-targeted pollutants associated with urban areas including metals, oil, grease, and pesticides.

An additional objective of the WRAPS plan is to conserve water. Capture of rainwater through the permeable pavement, bio-swales and rain gardens will reduce the amount of potable water needed for irrigation of landscaping in the immediate area.

The primary environmental impacts during the construction of this project include the noise of heavy construction equipment and slight erosion of exposed soil. Measures to control construction erosion and other impacts will be employed as required by the necessary permits from applicable state and federal agencies. Land, materials, fuels and other forms of energy utilized in construction will be irretrievably committed to the project.

The primary environmental benefits after construction include stormwater management that will reduce the amount of sediments, organics, oil and grease, nutrients, metals and litter entering downstream surface waters within the watershed. Control of runoff entering the downstream waters will also help to decrease downstream flooding.

The project will have no known adverse impact on rare or endangered species, sensitive ecosystems, unique environmental features, critical archeological or historic sites, parks, wetlands, groundwater quality, open space and recreation opportunities, prime farmland or air quality. No relocation of residences or other buildings will be required.

Intergovernmental review comments were requested from the U.S. Department of Interior Fish & Wildlife Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency Region 7, Kansas Department of Health and Environment (KDHE), Kansas Department of Wildlife & Parks, Kansas Water Office, Kansas State Historical Society, Natural Resources Conservation Service, Kansas Department of Agriculture Division of Water Resources, Kansas Department of Agriculture Division of Conservation, Kansas Biological Survey, Kansas Corporation Commission, and Kansas Geological Survey. There was no response from the Kansas Corporation Commission. As of this time, no agency has prohibited clearance of the project.

A public meeting and public hearing were held for this project on June 21, 2012. The University addressed some questions at the public meeting, and no public comments were received at the public hearing. No public opposition to the project was raised during the public meeting or public hearing.

The project is estimated to cost \$700,000. The University of Kansas has received a \$450,000 loan for Green Project Reserve / Nonpoint Source Pollution Control Practices through the Kansas Water Pollution Control Revolving Fund (KWPCRF). The University of Kansas will receive 100% principal forgiveness on the loan amount up to a maximum of 75% of the total project cost. The University of Kansas will utilize other funding sources for the remaining 25% of the project cost.

After considering both short-term and long-term environmental effects of the project, it has been determined that any short-term adverse impacts during construction will be surpassed by the long-term benefits derived from the improved stormwater quality and other environmental benefits derived from the project.

This action is taken on the basis of review of the project management plan, the environmental assessment and other supporting documentation. These are available for public review upon request. A copy of the environmental assessment document is attached. Persons wishing to comment on this Finding of No Significant Impact may submit comments to the Kansas Department of Health and Environment during this period to the attention of Jaime Gaggero, Chief, Watershed Management Program.

Sincerely,



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John W. Mitchell  
Director, Division of Environment

Attachments:

Environmental Assessment Document  
Distribution List  
Project Map

## Environmental Assessment Document

### **A. Project Identification:**

Project Applicant: **University of Kansas**  
Project Name: Permeable Pavement Retrofit Parking Lot 54 Project  
Project No.: **C20 1945 01**  
Project Type: Urban Stormwater Management  
Project Total: \$700,000  
Loan Amount: \$450,000  
Principal Forgiveness: \$450,000

### **B. Community Description:**

Location: The project is located on the University of Kansas Campus at 1501 Irving Hill Road, Lawrence, KS 66045. It is within the Lower Kansas River Watershed, HUC 10270104, and is more specifically located northwest of the intersection of Irving Hill Road and Naismith Road.

Population: The City of Lawrence, Kansas has an estimated 2010 population of 87,643 people.

### **C. Project Description:**

Purpose: The purpose of the project is to reduce nonpoint source pollution and decrease downstream flooding by reconstructing an existing parking lot with a pervious (porous) concrete pavement. The pavement system will be designed to capture and infiltrate stormwater runoff. The proposed project includes the reconstruction of Parking Lot 54 (approximately 75,000 square feet) located on the University of Kansas campus with permeable (porous) concrete pavement. The project also plans to convert existing islands within the parking lot and adjacent green spaces to a series of rain gardens and bioswales to be planted with native vegetation.

The Lower Kansas River Watershed Restoration and Protection Strategy (WRAPS) watershed plan identifies excessive Total Maximum Daily Loads (TMDL) for "biology" in the Kansas River at Lawrence and the Lower Kansas River, to which the project area ultimately drains. Nonpoint sources from urban areas of Lawrence, including the KU campus, contribute to these loads. The pervious pavement, bio-swales and rain gardens proposed in this project will contribute to reducing phosphorous and sediment loads consistent with the Lower Kansas River WRAPS plan. The project will also reduce or essentially eliminate discharges of other, non-targeted pollutants associated with urban areas including metals, oil, grease, and pesticides.

An additional objective of the WRAPS plan is to conserve water. Capture of rainwater through the permeable pavement, bio-swales and rain gardens will reduce the amount of potable water needed for irrigation of landscaping in the immediate area.

Design Factors: The project will include retrofitting an existing parking lot with pervious (porous) concrete pavement over crushed rock to capture and infiltrate stormwater runoff up to the 100-year storm event. The project design will also include the existing islands within the parking lot and adjacent green spaces. These areas will be designed to capture and retain stormwater by creating rain gardens and/or bio-swailes that are planted with native plants and grasses, which will help to remove some pollutants from the runoff as it infiltrates into the soil.

Financial: The project is estimated to cost \$700,000. The University of Kansas has received a loan in the amount of \$450,000 for Green Project Reserve / Nonpoint Source Pollution Control Practices through the Kansas Water Pollution Control Revolving Fund (KWPCRF). The University of Kansas will receive 100% principal forgiveness on the loan amount up to a maximum of 75% of the total project cost. The University of Kansas will utilize other funding sources for the remaining 25% of the project cost.

#### **D. Alternatives Considered:**

Various methods of stormwater management and non-point source pollution controls were considered, with several practices incorporated into the stormwater management project as previously described.

#### **E. Environmental Impact Summary:**

Primary:

- a. Construction: noise of heavy construction equipment and slight erosion of exposed soil can be expected during construction.
- b. Environmental: The project will reduce the amount of sediments, organics, oil and grease, nutrients, metals and litter entering downstream surface waters within the watershed. Control of runoff entering the downstream waters will also help to decrease downstream flooding.

Secondary:

- a. Population: This project will not adversely impact the population of the City of Lawrence, Kansas. Citizens will benefit from improved water quality through a reduction in nonpoint source pollution. Residents downstream of the project should also benefit from the stormwater runoff reduction.
- b. Land Use and Trends: The area in which the project is located is fully developed, and contains large areas of impervious surfaces. The implementation of stormwater best management practices, including reducing the amount of impervious surfaces and increasing areas of infiltration (through the installation of rain gardens, bioswailes, vegetative plantings, etc.) will help to improve and protect water quality.
- c. Environmental: No known adverse impacts are anticipated on rare or endangered species, sensitive ecosystems, groundwater, unique

environmental features, critical archaeological or historic sites, parks, wetlands, or air quality.

**Mitigation Measures Necessary:** Measures to control construction erosion and other impacts will be employed as required by the necessary permits from applicable state and federal agencies. The project will comply with best management practices for mitigating impacts of construction runoff and properly storing and disposing of construction materials.

**Irreversible and Irretrievable Commitment of Resources:** Land, materials, fuels and other forms of energy utilized in construction will be irretrievably committed to the project.

#### **F. Measures Taken to Ensure Environmental Soundness:**

**Public Involvement:** A public meeting and public hearing were held for this project on June 21, 2012.

**Public Opposition or Opinions:** The University addressed some questions at the public meeting, and no public comments were received at the public hearing. No public opposition to the project was raised during the public meeting or public hearing.

**Coordination and Documentation with Other Agencies and Special Interest Groups:** Project information was distributed to the following State and Federal agencies for review and comment:

- a. United States Department of Interior Fish & Wildlife Service
- b. United States Army Corps of Engineers
- c. US EPA, Region 7
- d. US Dept of Agriculture, Natural Resources Conservation Service
- e. Kansas Department of Health and Environment
- f. Kansas Department of Wildlife & Parks
- g. Kansas Biological Survey
- h. Kansas Corporation Commission
- i. Kansas Water Office
- j. Kansas Department of Agriculture
- k. Kansas Geological Survey
- l. Kansas State Historical Society
- m. Department of Agriculture, Division of Conservation

There was no response from the Kansas Corporation Commission, and no objections to the proposed project were received from the other reviewing agencies.

#### **G. Positive Environmental Effects to be Realized from the Project:**

The primary environmental benefits after construction include stormwater management that will reduce the amount of sediments, organics, oil and grease, nutrients, metals and litter entering downstream surface waters within the watershed. Water quality benefits to be achieved with this project include a reduction of contaminants in the runoff delivered downstream from the project drainage area due

to increased absorption and filtering of stormwater through the installed practices, which include pervious pavement, rain gardens, bioswales, and vegetative plantings, as well as a reduction in downstream flooding.

**H. Reasons for Concluding No Significant Impacts:**

The University of Kansas Permeable Pavement Retrofit Parking Lot 54 Project will not adversely impact population densities and land use patterns within the City of Lawrence, Kansas or the State. No known adverse impacts are anticipated on floodplains, wetlands, groundwater, or other environmentally sensitive areas. Minor, temporary, negative impacts associated with construction stormwater runoff will be offset by the long-term benefits of the project.

*Cam Henderson*

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Reviewer

*11/27/2012*

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Date

**Environmental Clearance Documents – Distribution List**  
Green Infrastructure / Non-Point Source Pollution Abatement Project  
Finding of No Significant Impact and Environmental Assessment

Kansas Dept. of Wildlife & Parks  
Environmental Services Section  
512 SE 25th Avenue  
Pratt, Kansas 67124-8174

State Conservationist  
Natural Resources Conservation Service  
760 South Broadway  
Salina, Kansas 67401

Executive Director  
Kansas State Historical Society  
6425 SW 6th Ave  
Topeka, Kansas 66615

Kansas Geological Survey  
KU – 1930 Constant Ave  
Campus West  
Lawrence, KS 66047

Kansas Biological Survey  
University of Kansas  
2041 Constant Ave  
Lawrence, Kansas 66047-2906

U.S. Army Corps of Engineers  
700 Federal Building  
601 E. 12<sup>th</sup> Street  
Kansas City, Missouri 64106

Kansas Water Office  
901 S. Kansas Avenue  
Topeka, Kansas 66612

Kansas Dept. of Agriculture  
Division of Water Resources  
109 S.W. 9th Street  
Topeka, Kansas 66612

Kansas Corporation Commission  
130 S. Market - 2nd Floor  
Wichita, Kansas 67202

U.S. Dept. of the Interior  
Fish & Wildlife Service  
Ecological Services/  
Partners for Fish & Wildlife  
2609 Anderson Avenue  
Manhattan, Kansas 66502-2801

Kansas Dept. of Agriculture  
Division of Conservation  
109 S.W. 9th Street, Suite 2A  
Topeka, Kansas 66612

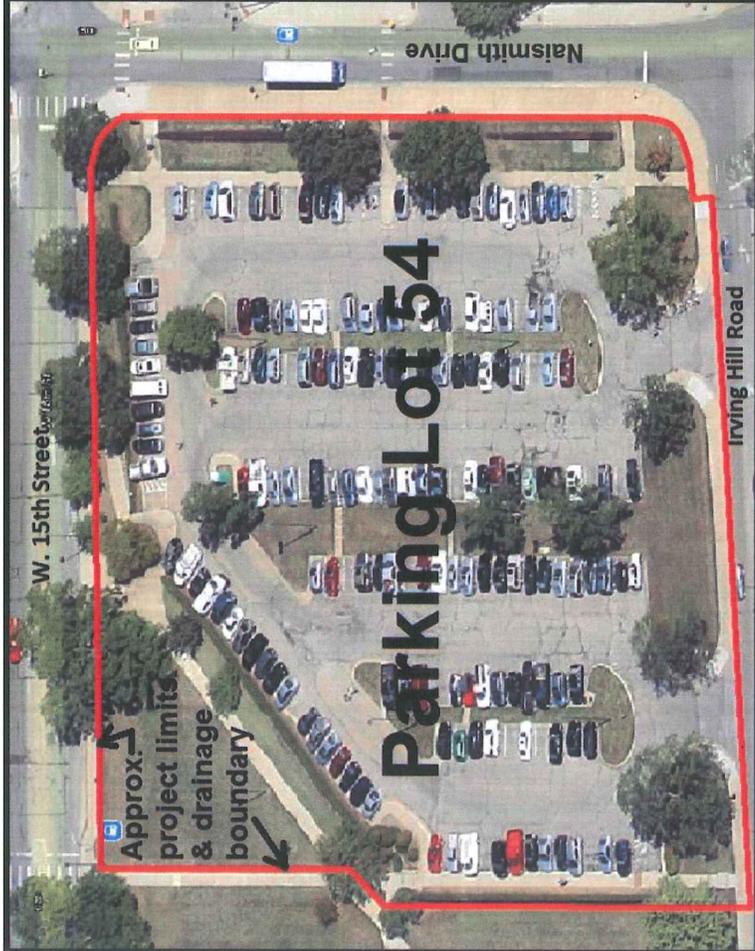
US EPA, Region 7  
NPDES & Facilities Management  
11201 Renner Blvd.  
Lenexa, KS 66219

Kansas Department of Health & Environment  
1000 SW Jackson Street, Suite 400  
Topeka, KS 66612

Mr. Paul Graves  
University of Kansas  
Office of Design and Construction  
Management  
1246 W. Campus Road, Room 114  
Lawrence, KS 66045-7505

Mr. Matt Bond  
Public Works Stormwater Division  
City Hall  
6 E. 6<sup>th</sup> Street  
Lawrence, KS 66044

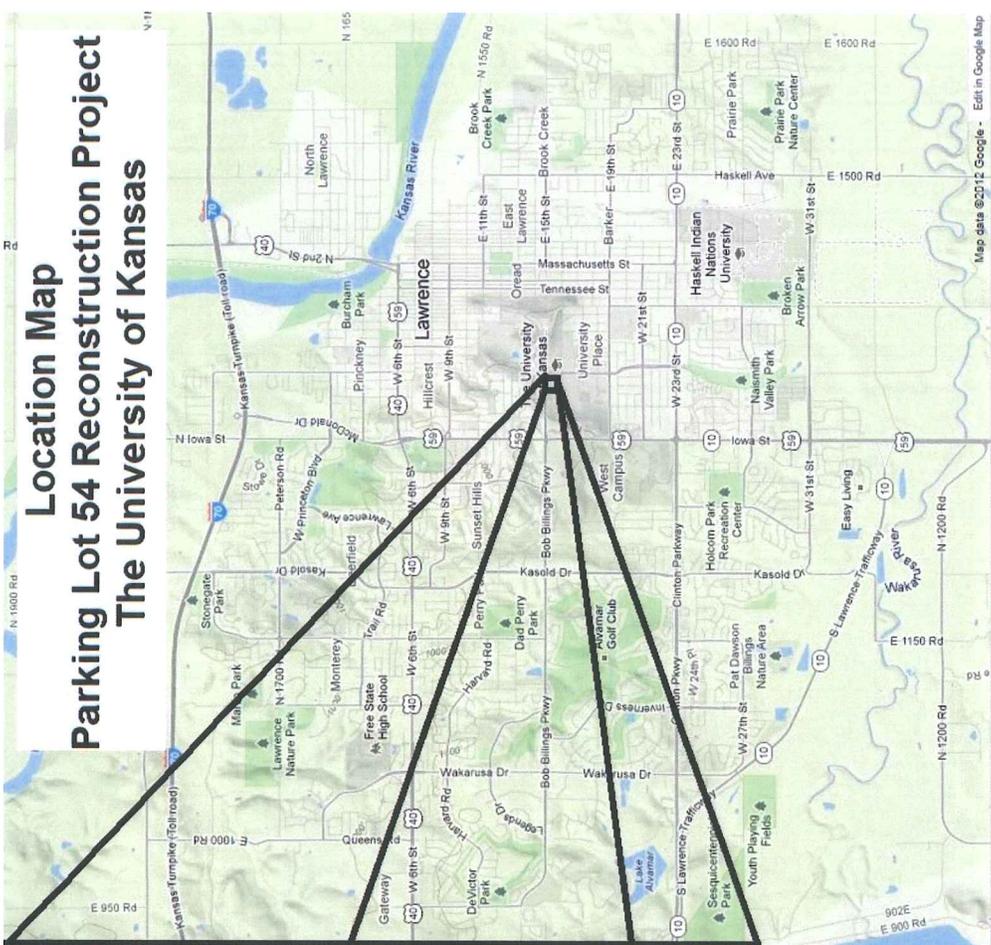
Lawrence Journal-World  
645 New Hampshire  
P.O. Box 888  
Lawrence, KS 66044



# Parking Lot 54

Approx. project limits & drainage boundary

Part of The University of Kansas Campus, within the City of Lawrence, Douglas County, Kansas  
 NE 1/4, NE 1/4, NW 1/4 of Section 1, Township 13S, Range 19E  
 Approx. Center Coordinates 38.9564°N, -95.2528°W



## Location Map Parking Lot 54 Reconstruction Project The University of Kansas

