



Environmental Summary

Kansas Department of Transportation

MEMO TO: Michael Moriarty, Corridor Management Administrator
Bureau of Transportation Planning

FROM: Scott Vogel, Chief 
Environmental Services Section

DATE: April 28, 2010

SUBJECT: Preliminary Environmental Review
54-8 KA-1156-01
Butler County

A Preliminary Environmental Review for the US54/400 Design Concept Study was initiated for the City of Andover based on a study area map (US54/400 Study Limits City of Andover) received January 20, 2010. The following is a summary of each environmental task evaluated.

ARCHEOLOGY: CLEARED - A Phase I investigation for the study area was requested January 21, 2010. Based on archival research, a Phase II field survey was recommended. The field survey was conducted April 5th and 6th, 2010. No significant cultural resources were found within the attached study area, resulting in a finding of no historic properties affected on April 8, 2010. However, due to the buried nature of these resources, cultural deposits could be encountered during construction. If that occurs, the remains should be left in place and the State Archeologist contacted immediately.

CULTURAL & HISTORICAL: CLEARED - An Activity I field survey was conducted by KDOT personal on January 21, 2010. Photographs were taken of all potentially historic standing structures. A total of six (6) structures were photographed and submitted to the State Historic Preservation Office (SHPO) for review. Based on these photographs the SHPO determined that the proposed project will not adversely affect buildings or structures listed or eligible for listing in the National Register of Historic Places on February 3, 2010.

WETLANDS: The attached National Wetlands Inventory (NWI) map (NWI Mapped Wetlands and Waters of the U.S.) indicates the presence of wetlands within the study corridor. Emergent wetlands are shown as PEMC and PEMA, scrub-shrub wetlands are shown as PSSA and PSSAh, forested wetlands are shown as PFOA and PFOAh, aquatic bed wetlands are shown as PABFh and PABFx, and unconsolidated shore wetlands are shown as PUSCx. These wetlands are associated with drainages, stream channels, and ponds.

A field visit by Environmental Services staff on Jan. 21, 2010 found the following changes from what is indicated on the NWI map. The stream channel located in the SW ¼ Sec. 19 and NW ¼ Sec. 30, shown as a forested wetland (PFOA) on the NWI map, has emergent wetlands in the channel. The NWI map shows an aquatic bed wetland (PABFh) and scrub-shrub wetland (PSSAh) located south of US-54 in the NE ¼ Sec. 30. This low area appears to have been reshaped and lengthened into a pond. The NWI map shows a stream channel with emergent

wetlands (PEMC) located in the SW ¼ SW ¼ Sec. 20. This stream has been relocated underneath the parking lot. On the same stream south of US-54 in the NW ¼ Sec. 29 the NWI map shows scrub-shrub (PSSA) and emergent (PEMC) wetlands associated with the stream channel. This stream has been modified into a series of ponds and no wetlands were observed on the date of the field visit. The NWI map shows an aquatic bed wetland (PABFh) located south of US-54 in the NW ¼ NE ¼ Sec. 29. This appears to have been filled. The pond located just north of US-54 in the SW ¼ Sec. 20, shown on the NWI map as an aquatic bed (PABFh) and forested wetland (PFOAh), has become a large emergent and scrub/shrub wetland surrounded by trees. The channel of Republican Creek located near the east end of the study corridor is a potential forested wetland.

National Wetlands Inventory maps were developed by the US Fish & Wildlife Service (USFWS) using high altitude aerial photographs. National Wetlands Inventory mapped wetlands may or may not qualify as Corps of Engineers (COE) jurisdictional wetlands when wetland determinations are performed following the methods described in the March 2008 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region.

Fill or excavation in COE jurisdictional wetlands requires Section 404 permits and mitigation. Emergent wetlands are normally replaced at a 1.5:1 ratio, while scrub-shrub and forested wetlands are replaced at a 2:1 ratio. The COE normally requires impacted wetlands to be replaced in the same watershed where the impact occurs.

STREAMS: Beginning at 159th Street at the west end of the study corridor and working east the corridor crosses three tributaries to Fourmile Creek in Sec. 19-T27S-R3E. The first is located in the SW ¼ Sec. 19, the second is located in the SE ¼ Sec. 19 at the south section line, and the third is located in the SE ¼ Sec. 19 near the east section line. A field visit on Jan. 21, 2010 found the stream channel in the SE ¼ Sec. 19 at the south section line to be COE non-jurisdictional north of US-54. As shown on the topography map this stream barely extends north of US-54. In the SW ¼ Sec. 20 two tributaries to Fourmile Creek are crossed. As previously mentioned the tributary to the west is now underneath the parking lot. Further east in the SW ¼ Sec. 21 the corridor crosses a tributary to Republican Creek and Republican Creek. None of the stream segments within the study corridor are classified in the Kansas Department of Health & Environment, Dec. 19, 2007 Kansas Surface Water Register.

The USGS topography map and aerial photographs show ponds within the study corridor located in the SW ¼ Sec. 19 (north of US-54), NW ¼ and NE ¼ Sec. 30 (south of US-54), SW ¼ and SE ¼ Sec. 20 (north of US-54), NW ¼ and NE ¼ Sec. 29 (south of US-54), and SW ¼ Sec. 21 (north of US-54). The field visit found that the pond located in the SW ¼ Sec. 20 is now a large emergent and scrub-shrub wetland. The pond located in the SW ¼ Sec. 19, north of US-54, is not shown on the topography map but is shown on the aerial photograph.

Streams and ponds are COE jurisdictional if they are connected to other waters of the US by jurisdictional streams. Fill or excavation in COE jurisdictional streams and ponds requires

54-8 KA-1156-01
April 28, 2010
Page 3 of 4

Section 404 permits and mitigation. The COE normally requires mitigation to occur in the same watershed where the impact occurs.

In Butler County the Kansas Department of Agriculture, Division of Water Resources (DWR), has jurisdiction over stream obstructions such as culverts and bridges, and channel changes, on streams having drainage areas over 240 acres. Construction or modification of bridges or culverts, or changes in the cross section of stream channels on DWR jurisdictional streams requires permits from the DWR. The DWR requires new stream channels to have 50 ft. wide vegetated buffers on both sides of the new channel.

WILDLIFE: In Butler County the USFWS lists the endangered Topeka Shiner. The USFWS has not established designated critical habitat (DCH) for the Topeka Shiner in Kansas. The USFWS indicated the Topeka Shiner occurs in the South Fork Cottonwood River and its tributaries located in the northeast corner of Butler County. A project within the study corridor will not affect Topeka Shiner habitat.

In Butler County the Kansas Department of Wildlife & Parks (KDWP) lists the endangered American Burying Beetle, threatened Eastern Spotted Skunk, endangered Eskimo Curlew, endangered Least Tern, threatened Piping Plover, threatened Sharp Hornsnail, threatened Snowy Plover, threatened Topeka Shiner, and endangered Whooping Crane.

Designated Critical Habitat (DCH) has been established for the Topeka Shiner and is described by KDWP as, "South Fork Cottonwood River and its tributaries in Butler County from the Butler/Chase County line (Sec. 4-T23S-R8E) upstream to its headwaters (Sec. 21-T23S-R8E)". This DCH is located in the northeast corner of Butler County and is not within the study corridor.

FLOODPLAINS: The attached Federal Emergency Management Agency, Flood Insurance Rate Maps 20015C0467E, and 20015C0486E show the 100-year flood zones and floodways within the study corridor. Floodways are present on Fourmile Creek tributaries in the NW ¼ Sec. 30, and NW ¼ Sec. 29, and the Republican Creek tributary in the SW ¼ Sec. 21 and NW ¼ Sec. 28, and Republican Creek in the SW ¼ Sec. 21 and NW ¼ Sec. 28.

In Butler County the DWR has jurisdiction over floodplain fills averaging over 1 ft. in height that are placed within the 100-year floodplains of streams having drainage areas over 240 acres. Floodplain fills averaging over 1 ft. in height require floodplain fills permits from the DWR. The DWR considers any increase in the elevation of the design and base flood profiles within a floodway, or an increase in the elevation of the design and base flood profiles of more than one foot at any location outside a floodway to be an unreasonable affect.

HAZARDOUS WASTE: A data base search for hazardous waste sites within the sections included in the study corridor did not reveal any hazardous waste sites. The data bases searched included the Kansas Department of Health & Environment (KDHE) Identified Sites, KDHE Landfills, National Priorities List (NPL), and Environmental Protection Agency Super Fund (CERCLIS).

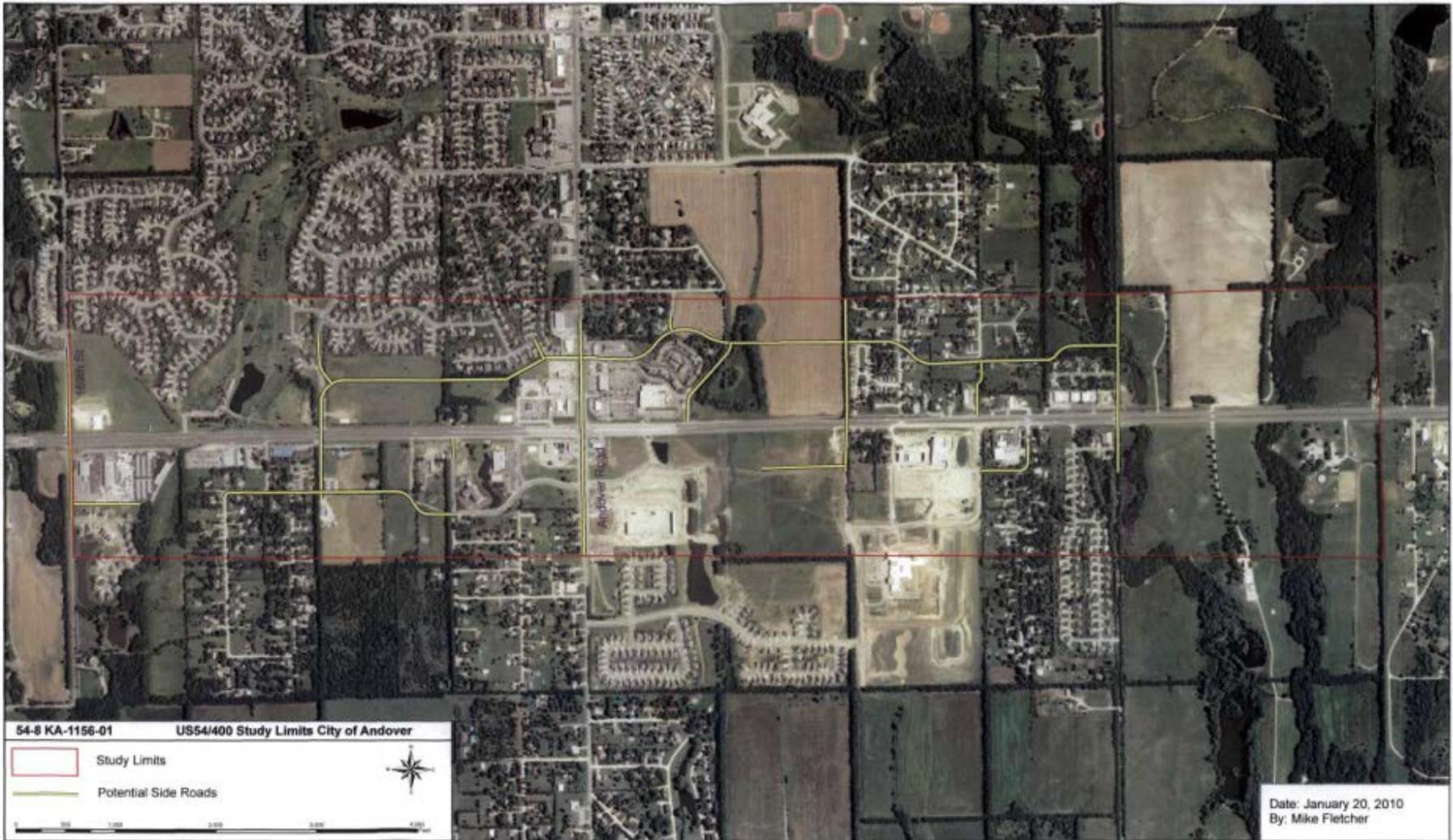
54-8 KA-1156-01
April 28, 2010
Page 4 of 4

A field survey conducted February 2010 identified the following sites that may pose hazardous waste concerns. A wholesale fireworks building located in the NW NW NW Sec. 30-T27S-R3E. A pet cemetery located in the NE NW NE Sec. 30-T27S-R3E. An active Valero gas station with three underground storage tanks (USTs) approximately 130 ft. south of the US-54 centerline located in the NE NE NE ¼Sec. 29-T27S-R3E. An active Presto gas station with two USTs approximately 130 ft. south of the US-54 centerline located in the SE SE SE Sec. 19-T27S-R3E. An active Kwik Shop gas station with three USTs located approximately 95 ft. north of the US-54 centerline located in the SE SE SE Sec. 19-T27S-R3E.

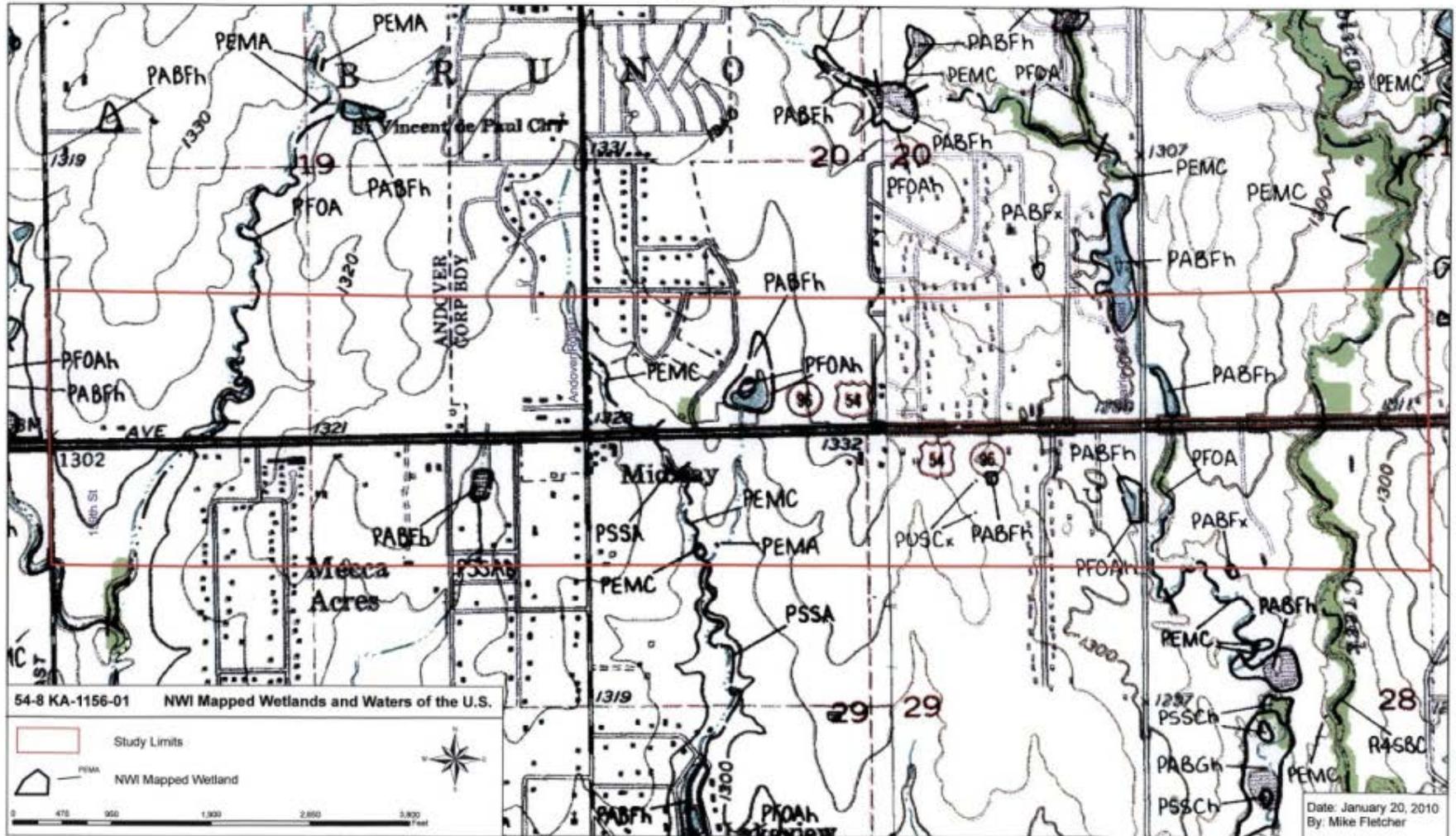
If you have any questions contact this office at (785) 296-0853.

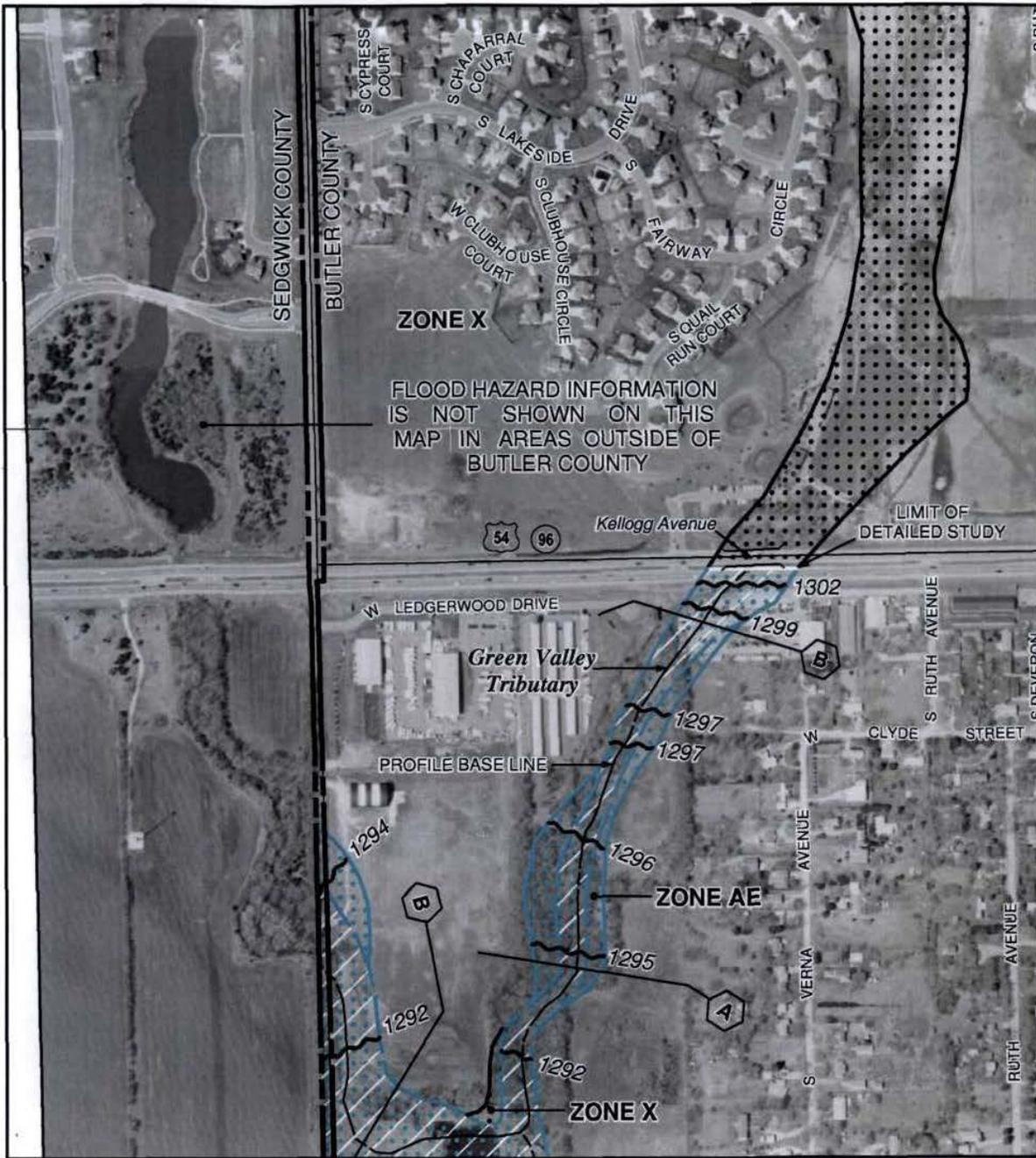
SPV:MPF
Attachments

54-8 KA-1156-01
US54/400 City of Andover



54-8 KA-1156-01
 US54/400 City of Andover





ZONE X

FLOOD HAZARD INFORMATION IS NOT SHOWN ON THIS MAP IN AREAS OUTSIDE OF BUTLER COUNTY

the Flood Insurance Study report for this jurisdiction.
 Insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 500'



PANEL 0467E

FIRM
FLOOD INSURANCE RATE MAP
BUTLER COUNTY,
KANSAS
AND INCORPORATED AREAS

PANEL 467 OF 900
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUTLER COUNTY	200037	0467	E
ANDOVER, CITY OF	200383	0467	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



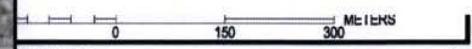
MAP NUMBER
20015C0467E
EFFECTIVE DATE
JUNE 2, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



the Flood Insurance Study report for this jurisdiction.
 Insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



PANEL 0467E

FIRM
FLOOD INSURANCE RATE MAP
BUTLER COUNTY,
KANSAS
AND INCORPORATED AREAS

PANEL 467 OF 900
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUTLER COUNTY	200037	0467	E
ANDOVER, CITY OF	200383	0467	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

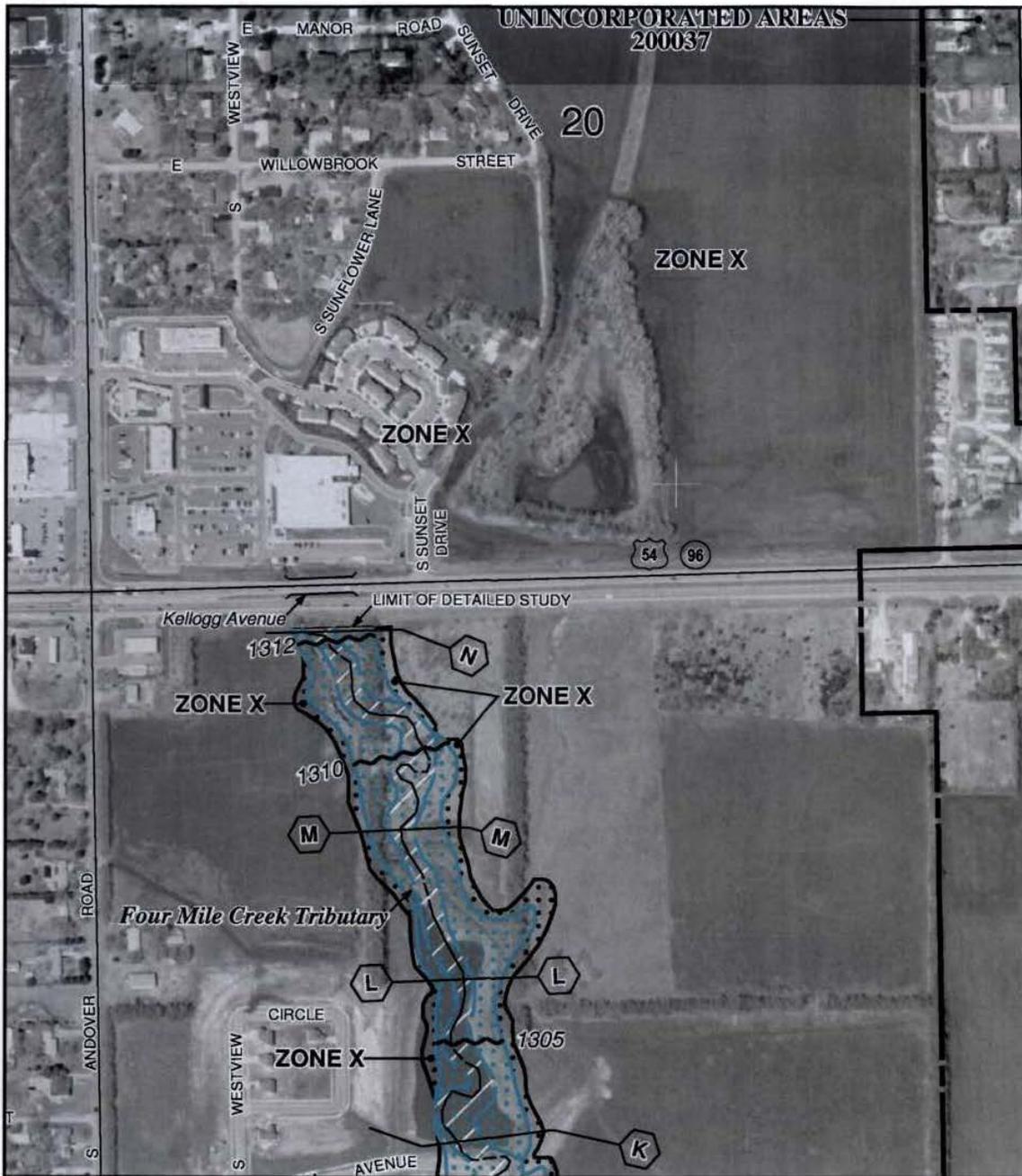


MAP NUMBER
20015C0467E
EFFECTIVE DATE
JUNE 2, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

NATIONAL FLOOD INSURANCE PROGRAM



the Flood Insurance Study report for this jurisdiction.

Insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

PANEL 0467E

FIRM
FLOOD INSURANCE RATE MAP
BUTLER COUNTY,
KANSAS
AND INCORPORATED AREAS

PANEL 467 OF 900
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUTLER COUNTY	200037	0467	E
ANDOVER, CITY OF	200383	0467	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

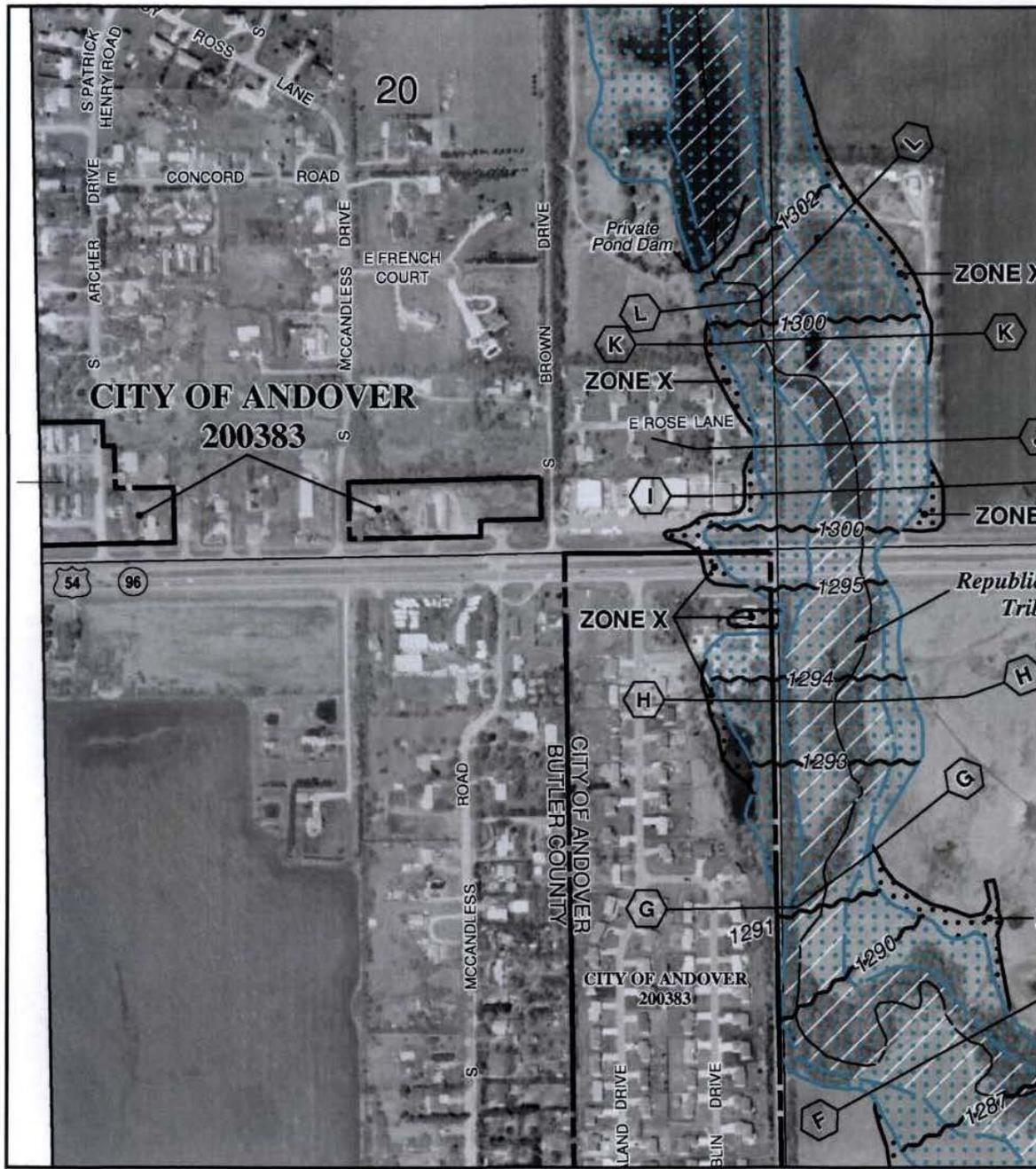
MAP NUMBER
20015C0467E

EFFECTIVE DATE
JUNE 2, 2009

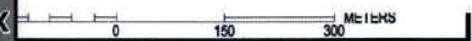
Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



the Flood Insurance Study report for this jurisdiction.
 Insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



PANEL 0486E

FIRM
FLOOD INSURANCE RATE MAP
BUTLER COUNTY,
KANSAS
AND INCORPORATED AREAS

PANEL 486 OF 900
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUTLER COUNTY	200037	0486	E
ANDOVER, CITY OF	200383	0486	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
20015C0486E
EFFECTIVE DATE
JUNE 2, 2009

Federal Emergency Management Agency

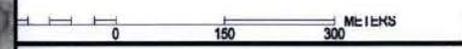
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



For the Flood Insurance Study report for this jurisdiction. If flood insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 500'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0486E

**FIRM
FLOOD INSURANCE RATE MAP
BUTLER COUNTY,
KANSAS
AND INCORPORATED AREAS**

PANEL 486 OF 900
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUTLER COUNTY	200037	0486	E
ANDOVER, CITY OF	200383	0486	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
20015C0486E

EFFECTIVE DATE
JUNE 2, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

LEGEND



SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.



OTHER AREAS

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

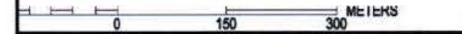


COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

the Flood Insurance Study report for this jurisdiction.
 Insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 500'



PANEL 0486E

FIRM FLOOD INSURANCE RATE MAP BUTLER COUNTY, KANSAS AND INCORPORATED AREAS

PANEL 486 OF 900

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BUTLER COUNTY	20037	0486	E
ANDOVER, CITY OF	20038	0486	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
20015C0486E
EFFECTIVE DATE
JUNE 2, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov