I. Executive Summary

II. Community Participation Process

III. Assessment of Past Goals, Actions and Strategies

IV. Fair Housing Analysis
   A. Demographic Summary
   B. Segregation/Integration

V. Racially/Ethnically Concentrated Areas of Poverty

VI. Disparities in Access to Opportunity
   A. Education
   B. Employment
   C. Transportation
   D. Low Poverty Exposure

E. Environmental Health
   F. Patterns in Disparities to Access Opportunity

VII. Disproportionate Housing Needs

VIII. Publicly Supported Housing Analysis

IX. Disability and Access Analysis

X. Fair Housing Enforcement, Outreach Capacity and Resource Analysis

XI. Fair Housing Goals and Strategies

Produced by the Mid-America Regional Council on behalf of the cities of Blue Springs, Independence and Kansas City, Missouri; the city of Leavenworth, Kansas; and the Unified Government of Wyandotte County/Kansas City, Kansas. This assessment is required to meet Community Development Block Grant obligations for Affirmatively Furthering Fair Housing as established by the U.S. Department of Housing and Urban Development.
Section VI-E

Disparities in Access to Opportunity — Environmental Health

KEY FINDINGS AND CONCLUSIONS

• Low environmental index scores (higher exposure) coincide with some of the region’s oldest industrial areas, some of which are in or in proximity to the R/ECAP (Racial/Ethnic Concentrated Areas of Poverty) areas. Higher index scores (less exposure) are found in most of the region, particularly in suburban and rural areas.

• Areas of high environmental hazard coincide in some cases with some concentrations of black populations, although many areas with the highest environmental hazard exposure have very little population. Some of the areas in the region with higher environmental hazard exposure are found in northeast Kansas City, Kansas, northeast and Blue River industrial areas I Kansas City, Missouri; Argentine and Armourdale areas, northeast Kansas City, Kansas; along I-35 in Johnson County, Kansas; and North Kansas City, Missouri, in Clay County.

• The lowest exposures for the region are for non-Hispanic whites and Native Americans. Hispanic persons across the region are at slightly greater risk of exposure.

• Portions of Kansas City, Missouri and Kansas City, Kansas, where minority and poor persons live, particularly R/ECAPS, have high walkability scores while others, particularly the areas in eastern and southeastern Kansas City, Missouri, have lower scores due to lower density of development and lack of sidewalks.

• Portions of Kansas City, Missouri and Kansas City, Kansas, where minority and poor persons live, including foreign-born, have high walkability scores.
Environmentally Healthy Neighborhood Opportunities

The Environmental Health Index measures exposure based on EPA estimates of air quality and carcinogenic, respiratory and neurological toxins by neighborhood. A higher score generally indicates less exposure to toxic release hazards by neighborhood, where a neighborhood is a census block group. The data used by HUD is from a 2005 Environmental Protection Agency database of toxic releases.

### Table 1: Environmental Health Index

Data Provided by HUD

<table>
<thead>
<tr>
<th></th>
<th>KCK</th>
<th>KCMO</th>
<th>Blue Springs</th>
<th>Independence</th>
<th>Leavenworth</th>
<th>KC Region</th>
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<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>White*</td>
<td>46.68</td>
<td>53.51</td>
<td>70.60</td>
<td>64.99</td>
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<td>62.54</td>
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<tr>
<td>Black*</td>
<td>43.24</td>
<td>48.22</td>
<td>70.26</td>
<td>63.39</td>
<td>84.66</td>
<td>51.52</td>
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<td>Hispanic</td>
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<td>43.90</td>
<td>70.67</td>
<td>63.45</td>
<td>87.47</td>
<td>48.98</td>
</tr>
<tr>
<td>Asian or Pacific Islander*</td>
<td>39.58</td>
<td>47.49</td>
<td>70.42</td>
<td>65.16</td>
<td>86.32</td>
<td>53.04</td>
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<tr>
<td>Native American*</td>
<td>42.17</td>
<td>50.07</td>
<td>70.89</td>
<td>64.59</td>
<td>89.22</td>
<td>61.42</td>
</tr>
<tr>
<td><strong>Population below federal poverty line</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White*</td>
<td>38.95</td>
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<td>63.96</td>
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<td>60.75</td>
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<tr>
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<td>67.45</td>
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<tr>
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<td>61.01</td>
<td>86.28</td>
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<td>69.85</td>
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<td>80.22</td>
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<tr>
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<td>47.79</td>
<td>69.00</td>
<td>58.98</td>
<td>76.81</td>
<td>57.61</td>
</tr>
</tbody>
</table>

* Non-Hispanic

**Regional Context** — Maps 1 - 4 indicate that low environmental index scores (higher exposure) coincide with some of the region’s oldest industrial areas, some of which are in or in proximity to the R/ECAP (Racial/Ethnic Concentrated Areas of Poverty) areas. Higher index scores (less exposure) are found in most of the region, particularly in suburban and rural areas.

Areas of high environmental hazard coincide in some cases with some concentrations of black populations, although many areas with the highest environmental hazard exposure have very little population. Some of the areas in the region with higher environmental hazard exposure are found along I-35 in Johnson County, Kansas, and North Kansas City, Missouri, in Clay County.

The lowest exposures for the region are for non-Hispanic whites and Native Americans. Hispanic persons across the region are at slightly greater risk of exposure. Foreign-born persons from Mexico and Vietnam are more likely to reside in northeast Kansas City, Missouri and northeast area and the Armourdale area of Kansas City, Kansas, where older industrial properties pose greater environmental risks.

**Kansas City, Missouri, and Kansas City, Kansas** — In general terms, these two cities are more likely to have exposure to higher toxic releases due to the presence of older industrial areas. These areas are in northeast Kansas City, Missouri; the Blue River area in east Kansas City, Missouri; northeast Kansas City, Kansas, and the Armourdale area of Kansas City Kansas.
In Kansas City, Missouri, Hispanics have somewhat higher risk, both overall and for Hispanic persons below the poverty line. Non-Hispanic whites and Native Americans below the poverty line are at slightly less risk than all Hispanics in the city. For Kansas City, Kansas, the exposure index is lowest, meaning that residents in the city are at the greatest risk of the five cities examined in this assessment. Hispanics and non-Hispanic Asians or Pacific Islanders are at greatest risk of exposure in Kansas City, Kansas, both overall and for those in poverty.

**Independence, Leavenworth and Blue Springs** — These three cities have fewer industrial areas and therefore low environmental hazard exposure. The city of Leavenworth has the lowest risk of exposure for all races and ethnicities. For Blue Springs, the index is about the same for all races/ethnicities with slightly greater risk for non-Hispanic blacks below the poverty line. There is one area of low environmental health in or near the city of Blue Springs, but there does not appear to be much population in or around that area. For Independence, non-Hispanic blacks and Hispanics are at slightly greater risk of exposure. Those in poverty who are non-Hispanic Native Americans are at greatest risk in the city of Independence, while non-Hispanic Asians or Pacific Islanders below the poverty line are at the least risk of all races/ethnicities.

A modified version of HUD’s Environmental Health Index map shows the level of exposure to environmental health hazards for jurisdictions and the region. The map also includes R/ECAP outlines.
Map 2 shows exposure to toxic releases by race and ethnicity. The R/ECAP areas in Kansas City, Missouri, and Kansas City, Kansas, are in closer proximity to old industrial areas and have lower environmental health indexes (higher exposure). These areas are also neighborhoods with higher proportions of minority persons and persons in poverty.

The areas in Kansas City, Missouri, have higher proportions of black and Hispanic persons. For Kansas City, Kansas, the areas with lower environmental health indexes are primarily Hispanic and Asian populations.

For the foreign-born population (Map 3), persons born in Mexico and Asian countries, particularly Vietnam, live in greater numbers in less environmental healthy neighborhoods in Kansas City, Missouri, and Kansas City, Kansas.
Families with children are located in the same neighborhoods as the overall population, and do not appear to be concentrated at greater proportions in lower environmental healthy neighborhoods.
Map 5 from local data shows that some parts of the Kansas City region have older housing stock, which may contain lead-based paint. Children’s Mercy Hospital has mapped the location of children identified with elevated levels of lead in their blood. These areas are concentrated in the central part of the cities of Kansas City, Missouri and Kansas City, Kansas, from incidents reported over the past four years.

Map 5: Children with Elevated Lead Levels, 2011-2014

Another measure of neighborhood health is walkability. Map 6 shows the walkability scores — combining land use diversity, density of destinations, walkable street density, transit stop proximity, and transit level of service — for neighborhoods across the region.

Portions of Kansas City, Missouri and Kansas City, Kansas, where minority and poor persons live, particularly R/ECAPS, have high walkability scores while others, particularly the areas in eastern and southeastern Kansas City, Missouri, have lower scores due to lower density of development and lack of sidewalks.
There is limited data by neighborhood of environmental hazards such as lead-based paint exposure, poor water quality, poor air quality such as higher concentrations of particulate matter, etc. In general, older neighborhoods with older housing stock, proximity to highways and railroad lines, pose greater environmental risks than newer suburban portions of the region.

The presence of community facilities and assets is an indicator of whether an area is one of opportunity. The maps below show locations of community facilities and assets, including health clinics, grocery stores, community centers, schools, parks and trails. Community facilities that are operated by for-profit companies, such as grocery stores, are more prevalent in middle and upper income neighborhoods. Safety net clinics tend to be located in neighborhoods with higher proportions of persons without health insurance. Map 7 shows the location of community assets. In general, there are fewer commercial establishments such as full-service grocery stores, other retail and service establishments in older neighborhoods. This lack of access to goods and services impacts concentrated neighborhoods occupied by black and Hispanic households, foreign born persons and persons with disabilities.
Map 7: Community Assets

Legend:
- Health Clinics
- Health Departments
- Hospitals
- Mental Health Facilities
- Safety Net Clinics
- Police Stations
- Schools
- Farmers Market
- Large Grocery
- Small Grocery
- Colleges
- Shopping Centers
- Bikeways & Trails
- Park