Final

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Kentucky

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Purpose of the Procedure

Flood Insurance Studies involve searching for geospatial data during Discovery (formerly pre-scoping and scoping) tasks. If needed data are not available, studies might include funds that allow for the collection of new data and, where applicable, encourage cost sharing among existing organizations. Detailed information about the role geospatial data coordination plays in studies is in the *Geospatial Data Coordination Implementation Guide*, which is available https://https

Resources developed through FEMA's geospatial data coordination activities provide information about data and contacts for organizations that have geospatial data that cover large areas (like States) in which many agencies are interested. Dead-end searches and cold calls can be avoided by starting with these proven sources of information.

One resource is this Geospatial Data Coordination Procedure. It outlines sources of geospatial data and contact information, preferences for base map data and State geospatial participation in studies, and other useful information for the State.

If you have questions about this procedure or other geospatial data coordination resources, contact the geospatial data coordination lead in your RSC:

Nicole Ryerson COMPASS Regional Support Center 4 1360 Peachtree Street, Suite 500 Atlanta, GA 30309 (404) 965-7082 nicole.ryerson @aecom.com

This document will be shared with the appropriate Regional and State geospatial leads for feedback and comments.

Default Flood Hazard Base Map for the State

The default base map for flood hazard maps for the State is an image base map (orthophoto). Full coverage of the State is available.

Geospatial Data Coverage

Below, you will find links to statewide (and Federal agencies' national) geospatial datasets and information about them. The list is provided to save time when building a list of potential candidate geospatial datasets available for the study during Discovery activities; it is not a prescription of datasets that must be used in a Flood Insurance Study.

Major State Holdings

Orthophotos

Dataset name: Digital Ortho Imagery (NAIP) Data currentness: 2004, 2006, 2008, 2010, 2012 Accuracy/Scale: Horizontal accuracy of within +/- 3 meters of reference digital ortho quarter quads (DOQQs) from the National Digital Ortho Program (NDOP); Ground sample resolution: 1 meter Horizontal datum: NAD 83 Fee associated? No Available for redistribution? Yes Dataset source: <u>ftp://ftp.kymartian.ky.gov/</u> Dataset contact: Division of Geographic Information, Commonwealth Office of Technology, Kentucky Division of Geographic Information, 669 Chamerblin Drive, Frankfort, KY 40601; Phone: (502) 564-6231; Email: ogi.inquiry@ky.gov

Additionally, Orthoimagery through KYAPED, collected by local entities, and historic imagery is available at: <u>http://kyraster.ky.gov/arcgis/rest/services/ImageServices</u>

Notes: These data are from the National Agriculture Imagery Program (NAIP). NAIP imagery has many uses, and many states participate in NAIP. NAIP is leaf-on imagery and is not cloud-free, so the ground might be obscured. NAIP (and other such imagery) can be used as a base map; the imagery must be checked to ensure that it provides a clear view of important features on the ground for areas of significance for flooding (see Appendix C of the Geospatial Data Coordination Implementation Guide for more discussion). Also see the "Federal Mapping Program Factsheets" available through "Tools & Links" on the MIP website.

Transportation (roads, railroads, and airports)

Dataset name: Transportation Data currentness: Monthly Accuracy/Scale: Highway centerline data was created with Global Positioning System (GPS) technology. Horizontal datum: NAD 83 Fee associated? No Available for redistribution? Yes

Are road names part of the dataset? Yes Dataset source: <u>http://kygisserver.ky.gov/geoportal/catalog/main/home.page</u> Dataset contact: Kentucky Transportation Cabinet, Division of Planning 200 Mero St., Frankfort KY 40622; Phone: (502) 564-7183

Hydrography (rivers, streams, lakes, and shorelines)

Dataset name: Hydrography Data currentness: Updated 2002 Accuracy/Scale: 1:24,000 with updates based on 1:12,000-scale orthophotos Horizontal datum: NAD 83 Fee associated? No Available for redistribution? Yes Are hydrography names part of the dataset? Yes Dataset source: <u>http://kygisserver.ky.gov/geoportal/catalog/main/home.page</u> Dataset contact: DEP Division of Water, 200 Fair Oaks Lane, Fourth Floor, Frankfort, KY; Phone: (502) 564-3410; Fax: (502) 564-0111; Email: water@ky.gov

Notes: These data are part of the National Hydrography Dataset (NHD). Kentucky provides access through an FTP site and links to the USGS NHD site at <u>http://nhd.usgs.gov</u>.

Political boundaries (county, municipal)

Dataset name: Kentucky's City and County Boundaries Data currentness: 2002. Updated continually. Accuracy/Scale: See "Notes" below. Horizontal datum: NAD 83 Fee associated? No Available for redistribution? Yes Dataset source: <u>http://kygisserver.ky.gov/geoportal/catalog/main/home.page</u> Dataset contact: Division of Geographic Information, Commonwealth Office of Technology, Kentucky Division of Geographic Information, 669 Chamberlin Drive, Frankfort, KY 40601; Phone: (502) 564-6231; Email: <u>ogi.inquiry@ky.gov</u>

Notes: The incorporated city boundaries found on this site, or any associated map or data product, are a representation of boundary information provided by Kentucky cities in 1980 pursuant to KRS 81.045 along with boundary information associated with annexations and transfers filed by the cities with the Secretary of State pursuant to 81A.470. Not all boundaries are verified as accurate or current, and should not be utilized for purposes of property dispute settlement or other similar applications. The boundaries shown may be superseded by annexations, de-annexations, mergers, or other transfers of property that have not gone through the mapping process.

Publicly owned lands (National, State, and local parks, forests, etc)

Dataset name: Kentucky State Parks Data currentness: 2005. Updated as needed.

Accuracy/Scale: Care should be given in using this dataset. Data is not based on survey grade quality and should not be interpreted in a survey grade format. The Department of Parks does not guarantee the data is completely accurate and should be used with caution. Please contact if questions arise Horizontal datum: NAD 83 State Plane Kentucky FIPS 1600 Feet

Fee associated? No

Available for redistribution? Yes

Dataset source: <u>http://kygisserver.ky.gov/geoportal/catalog/main/home.page</u>

Dataset contact: Division of Geographic Information, Commonwealth Office of Technology, Kentucky Division of Georgraphic Information, 669 Chamberlin Drive, Frankfort, KY 40601; Phone: (502) 564-6231; Email: <u>ogi.inquiry@ky.gov</u>

Cadastral (parcels)

Limited coverage available from DGI ArcIMS services.

Extraterritorial jurisdiction (ETJ) boundaries

No coverage available.

Terrain (elevation)

Dataset name: Kentucky 5 Foot Digital Elevation Model (DEM) Data currentness: 01/2012 Accuracy/Scale: The vertical unit of the data file is in decimal feet with 2-decimal point precision. Vertical datum: NAVD 88 Fee associated? No Available for redistribution? Yes Dataset source: <u>ftp://ftp.kymartian.ky.gov/dem</u> Dataset contact: Kent Anness, GIS Manager, Division of Geographic Information, Commonwealth Office of Technology, Kentucky Division of Geographic Information, 669 Chamberlin Drive, Frankfort, KY 40601; Phone: (502) 564- 6268; Email: kent.anness@ky.gov

Notes: Raster DEM files are used to show the Digital Elevation Model of the LAS Class 2 surface. This allows the user to create Contours and Triangular Irregular Networks. LiDAR was collected at a 1.0 meter point spacing for the entire project area while no snow was on the ground and rivers were at or below normal levels.

Useful Risk MAP Discovery Data Sources

Preliminary information on Discovery data sources is provided in this document to reduce the level of effort needed on each subsequent Discovery data collection effort. Coordination with local community sponsors for additional local data still remains an integral part of Discovery and local data should be used where appropriate.

The National Geospatial Data Coordination Procedure document contains information on data resources available from other Federal agencies (OFAs), including those that FEMA maintains at the

national level, and should be used in conjunction with this State Geospatial Data Coordination Procedure document. In addition, FEMA and its contractors have created a geospatial Discovery Data Repository to host data that are not readily accessible through direct sources such as Web sites or subscription services and/or are not updated on a frequent basis. Instructions for accessing the Discovery Data Repository are provided in the National Geospatial Data Coordination Procedure Document.

Table 1 identifies data resources that are available at the regional and State levels, and also if there are no data available other than the national datasets. Resources in this table have been identified as appropriate for Discovery projects and may not represent the best data sources for FIRM production (please see the Preferred Base Map Sources section of this document for geospatial data that meets FIRM production requirements).

Data	Data Source	Location
Watershed boundaries	National	See National Operating Procedure
Jurisdictional boundaries	State SOP	http://kygisserver.ky.gov/geoportal/catal og/main/home.page
Tribal land boundaries	National	See National Operating Procedure
State lands	N/A	
Federal lands	National	Discovery Data Repository
Major roads	National; State SOP	See National Operating Procedure http://kygisserver.ky.gov/geoportal/catal og/main/home.page_
Streams	State SOP	http://kygisserver.ky.gov/geoportal/catal og/main/home.page
Coastal Barrier Resource Areas	N/A	Not applicable in the State of Kentucky
Coordinated Needs Management Strategy	National	CNMS data is available by request from each of FEMAs Regional Service Centers (RSC). Contact information for each RSC is available at the following website: https://hazards.fema.gov/femaportal/wps /portal/usercare_guidesAndDocs#Contac t_List
Topographic/ bathymetric data	National; State SOP	See National Operating Procedure <u>ftp://ftp.kymartian.ky.gov/</u>
AAL data from HAZUS	National; FEMA Regional Office	See National Operating Procedure R4 Contact: <u>samuel.wilkins@fema.dhs.gov</u>

Table 1. Discovery Data Resources

Data	Data Source	Location
Coverage areas for known community and Tribal risk assessment data	FEMA Regional Office	darlene.booker@fema.dhs.gov (Tribal)
Status of Hazard Mitigation Plans	FEMA Regional Office	Carl.Mickalonis@fema.dhs.gov
Flood control structure data	National; FEMA Regional Office	See National Operating Procedure RSC4 contact for MLI Data – <u>nicole.ryerson@aecom.com</u>
Locations of stream gages	National – USGS	See National Operating Procedure
Locations of past flood claims and repetitive loss properties	National	See National Operating Procedure
Locations of clusters of Letters of Map Change	National – FEMA	See National Operating Procedure
Known flooding issues not represented on effective FIRMs or listed in Coordinated Needs Management Strategy database	Local	No statewide coverage
Areas of planned development	Local	No statewide coverage
Areas of land use change datasets	National – USGS	The USGS Land Cover Institute (LCI) provides access to a wide variety of land use change and land cover data sets including the National Land Cover Dataset (NLCD). Data sets can be downloaded from the USGS at <u>http://landcover.usgs.gov/</u>
Locations of ongoing projects or updated stream studies (e.g. highway improvements)	Local	No statewide coverage
Locations of wave and tide gauges	N/A	Not applicable in the State of Kentucky
Locations of wind gauges	N/A	Not applicable in the State of Kentucky
Proposed inland limit of the Primary Frontal Dune, if present	N/A	Not applicable in the State of Kentucky
Locations of any beach nourishment or dune restoration projects	N/A	Not applicable in the State of Kentucky
Comparison of preliminary stillwater elevations with effective stillwater elevations	Local	No statewide coverage
Available effective study data	National	See National Operating Procedure
Orthophotography	State SOP	ftp://ftp.kymartian.ky.gov/

Data	Data Source	Location
Proposed discussion areas, problem areas, areas of proposed mitigation projects	Local	No statewide coverage
Land use and soil information	National – NRCS	The USDA Natural Resources Conservation Service (NRCS) maintains national soil data in a GIS format. Data can be downloaded from their Data Mart at this address <u>http://websoilsurvey.sc.egov.usda.gov/A</u> <u>pp/HomePage.htm</u> or from the NRCS Data Gateway listed in the Other Resources section of this document.
Reference points to locate areas with flooding issues	Local	No statewide coverage
Hydraulic structures	National	See National Operating Procedure
Coastal structures, including flood protection structures, shoreline structures, manmade embankments, surge conveyance pathways, and shoreline change data	N/A	Not applicable in the State of Kentucky
Local structure and topographic data from the existing hazard mitigation plans	State Hazard Mitigation Officer (SHMO) Local Community Mitigation Planning Lead	Geni Jo Brawner (SHMO) geneva.j.brawner.nfg@mail.mil Planning POC: Nick Grinstead <u>Nick.Grinstead@uky.edu</u>
Historic inundation areas and high water marks	FEMA Regional Office	lynne.keating @fema.dhs.gov
Clusters or locations of Individual Assistance/Public Assistance grants and locations of grant projects completed, planned, or underway	National; FEMA Regional Office	See National Operating Procedure R4 Contact, Individual Assistance: <u>Tarsha.Monk@fema.dhs.gov</u> R4 Contact, Public Assistance: <u>Saidat.Thomas.fema.dhs.gov</u>
Locations of projects and structures completed or planned for FEMA Hazard Mitigation Assistance grant programs or mitigation funds from other agencies or entities, such as the Small Business Administration	National; FEMA Regional Office	See National Operating Procedure R4 Contact: <u>Nika.Barnard@fema.dhs.gov</u>

Data	Data Source	Location
Other information on FEMA grants, as described in G&S Appendix I	National	See National Operating Procedure
Any data deficiencies identified in hazard mitigation plans	FEMA Regional Office	jessica.gibson@fema.dhs.gov
Information from FloodSmart on market penetration	National	See National Operating Procedure
Community Assistance Visits / Community Assistance Contacts	National; FEMA Region IV	See National Operating Procedure R4 Contact: <u>Timothy.Russo@fema.dhs.gov</u> <u>dewana.davis@fema.dhs.gov</u>
Community Rating System class information	National; FEMA Region IV	See National Operating Procedure R4 Contact: <u>dewana.davis@fema.dhs.gov</u>
Information from other Federal agencies	National	See National Operating Procedure
Information from State agencies, non-profit organizations, universities, etc.	Local	No statewide coverage
Current community plans, ordinances, or programs to alleviate flooding or manage stormwater	Local	No statewide coverage
Other known hazards with geographical boundaries (e.g. earthquake faults)	Local	No statewide coverage
Information on active disasters	FEMA Regional Office	Risk Analysis Contact: <u>Derek.Fellows@fema.dhs.gov</u> <u>Mariam.Yousuf@fema.dhs.gov</u> FMI Contact: <u>Timothy.Russo @fema.dhs.gov</u> <u>Dewana.Davis@fema.dhs.gov</u> State HMA Contact: <u>Nika.Barnard@fema.dhs.gov</u>
Campgrounds, recreational areas, emergency access routes, etc.	National	See National Operating Procedure

Data	Data Source	Location
Any other data that might be appropriate	Local	No statewide coverage

Data Distribution Process for State Data

The State provides access to data through

http://kygisserver.ky.gov/geoportal/catalog/main/home.page. These data are available to FEMA at no charge and with no access restrictions for use in State maps.

Federal Nationwide Geospatial Data Holdings

Information about nationwide holdings and programs of Federal agencies is available from the Mapping Information Platform website at <u>https://hazards.fema.gov/femaportal/docs/ProgFacts.pdf</u>.

Finding and Accessing Other Existing Geospatial Data

Sources for additional geospatial data for the State are listed below. These capabilities can be useful for finding geospatial data other than the Statewide and Federal data listed above, including those of special governments, counties and parishes, municipalities, tribes, universities, and other organizations.

Clearinghouses and Inventories for the State

Data coverage for the State can be accessed through http://kygisserver.ky.gov/geoportal/catalog/main/home.page. This site is maintained by the Division of Geographic Information, Commonwealth Office of Technology, Kentucky Division of Geographic Information, 669 Chamberlin Drive, Frankfort, KY 40601; Phone: (502) 564-6231; Email: ogi.inquiry@ky.gov

The office also maintains the State's geospatial data clearinghouse at http://kygeonet.ky.gov/.

The Kentucky Geological Survey maintains a geospatial data library at http://www.uky.edu/KGS/gis/kgs_gis.html

3D Elevation Program

The U.S. Geological Survey (USGS) National Geospatial Program is developing the <u>3D</u> <u>Elevation Program (3DEP)</u> to respond to growing needs for high-quality topographic data and for a wide range of other three-dimensional (3D) representations of the Nation's natural and constructed features. The primary goal of 3DEP is to systematically collect 3D elevation data in the form of light detection and ranging (lidar) data over the conterminous United States, Hawaii, and the U.S. territories, with data acquired over an 8-year period. Interferometric synthetic aperture radar (IfSAR) data will be acquired for Alaska, where cloud cover and remote locations preclude the use of lidar in much of the State. The 3DEP initiative is based on the results of the National Enhanced Elevation Assessment that documented more than 600 business uses across 34

Federal agencies, all 50 States, selected local government and Tribal offices, and private and nonprofit organizations.

TED Query Tool

This tool provides access to information about Federal, State, and local government agency and private sector data holdings gathered by the Census Bureau. It is available through the geospatial data coordination lead at the RSC.

Geospatial One-Stop

Geospatial One-Stop, available at <u>http://geo.data.gov/geoportal/</u>, provides access to geospatial data from many sources. Two parts of the site that should be investigated are the "data categories" for existing data and the "marketplace" for data that are planned or in progress.

Working with People

Useful State and Federal Contacts

The main contacts for the State's geospatial activities and Federal agencies' representatives in State are available on the Mapping Information Platform website: <u>https://hazards.fema.gov/contacts/statecontacts/contacts.asp?page=KY</u>.

Additional useful contacts for the State can be found at the Kentucky Geographic Information Advisory Council site: <u>http://technology.ky.gov/gis/Pages/GIAC.aspx</u>

Involving the State's Geospatial Coordinator in Flood Studies

The coordinator would like to attend each kickoff/discovery meeting. Contact Tom Rossman, Director of the Division of Geographic Information & Division of Support Services, Kentucky Divisoin of Georgraphic Information, 669 Chamberlin Drive, Frankfort, KY 40601; Phone: (502) 564-6412; Email: <u>thomas.rossman@ky.gov</u>.

This State already has a working relationship with the office in the State that is responsible for updating the multi-hazard maps.

State Coordination Process for Building Geospatial Partnerships

The Kentucky Geographic Information Advisory Council (GIAC) assists State and local jurisdictions in developing, deploying, and leveraging geographic information resources and geographic information systems technology for the purpose of improving public administration. The GIAC also seeks to ensure maximum use of geographic information by minimizing the redundancy of information and resources. More information is available at http://technology.ky.gov/gis/Pages/GIAC.aspx.

Finding Local Geospatial Contacts

Local contacts, including those from special government districts (for example, a regional planning commission); counties, parishes, or equivalent governments; tribes, municipal governments; and other organizations (for example, local universities) also have geospatial data that can enhance a Flood Insurance Study. Contact information is available from the FEMA archive and via web searches at government portals such as http://www.statelocalgov.net.

The State does not maintain a Statewide GIS contact list. The State maintains the KYGIS listserv that can be used to forward FEMA program information and production notices to State and county GIS contacts. To use this list serve, contact: Freida Vinegar, Finance and Administration Cabinet, Commonwealth Office for Technology, Kentucky Division of Geographic Information, 669 Chamberlin Drive, Frankfort, KY, 40601; Phone: (502) 564-6277; Email: <u>freida.vinegar@ky.gov</u>.

Provide Feedback on This Procedure

If you find information in this Procedure or in other FEMA or State resources that is outdated, please tell the geospatial data coordination lead in the RSC. When contacting the lead, describe what was wrong and include information on how it can be corrected, if that information is available. Use the contact information for the lead listed in the section entitled *Purpose of the Procedure*. The lead will use your feedback to update this Procedure.