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        Digital flood-inundation maps for a XX-mile reach of the XXX River from [POINTA to
        POINTB, STATE], were created by the U.S. Geological Survey (USGS) in cooperation with
        the [COOPERATOR]. The inundation maps, which can be accessed through the USGS Flood
        Inundation Mapping Science Web site at http://water.usgs.gov/osw/flood_inundation/,
        depict estimates of the areal extent and depth of flooding corresponding to selected
        water levels (stages) at the USGS streamgage at [STATION NAME] (sta. no. XX-XXXXXX).
```

Current conditions at the USGS streamgage may be obtained on the Internet. In addition, the information has been provided to the National Weather Service (NWS) for incorporation into their Advanced Hydrologic Prediction Service (AHPS) flood warning system (<http://water.weather.gov/ahps/>). The NWS forecasts flood hydrographs at many places that are often collocated at USGS streamgages. The forecasted peak-stage information, also available on the Internet, may be used in conjunction with the maps developed in this study to show predicted areas of flood inundation. (include this paragraph if applicable) In this study, flood profiles were computed for the stream reach by means of a one-dimensional step-backwater model. The model was calibrated using the most current stage-discharge relations at the [STATION NAME] gage and documented high-water marks from recent floods (if available). The hydraulic model was then used to determine XX water-surface profiles for flood stages at XX-ft intervals referenced to the streamgage datum and ranging from bankfull to approximately the highest recorded water level at the streamgage. The flood-peak inundation area was modeled in a GIS by combining [high-water mark data, and/or steady-state hydraulic modeling] and available [Lidar] digital elevation model (DEM) data as part of the U.S. Geological Survey study of the flood of [Month Year] in [City, State]. Information about the study, floods, and methods used can be found in the USGS Scientific Investigations Map XXXX. <http://pubs.usgs.gov/sim/XXXX>

</abstract>

<purpose>

This dataset was created to support the development of flood-peak inundation maps for documenting the extent of the [MONTH YEAR] flood along a reach of the XXX River in [CITY, STATE].

</purpose>

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<supplinf>

A GIS application was used to produce a plane representing the flood-peak water surface. The application duplicates the [high-water-mark elevation data points, and/or water-surface-elevation data from cross-section points] across the flood plain perpendicular to the direction of the flood flow. Elevations between [high-water marks, or water-surface points on the cross-sections] are proportional interpolations of the water-surface-elevation data and were positioned to generate a flood surface sloping with the water flow. A raster surface was created with the data points using a spline interpolation method, forming the estimated flood surface. A flood-depth grid was made by subtracting the DEM from the flood surface. The flood-peak inundation areas are available in a GIS format, polyline shapefile, that provides extent of the flood peak for each stage level. This format allows the GIS data to be overlain on maps and aerial photographs, and to be used for various GIS applications, such as FEMA's Hazards U.S. Multi-Hazards (HAZUS-MH) program (Federal Emergency Management Agency, 2010b) to estimate flood damages. For more information on data processing and checking procedures, see the full report at <http://pubs.usgs.gov/sim/XXXX> Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government. Although this Federal Geographic Data Committee-compliant metadata file is intended to document the dataset in nonproprietary form, as well as in ArcGIS format, this metadata file may include some ArcGIS-specific terminology.

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Although these data have been used by the U.S. Geological Survey, U.S. Department of the Interior, no warranty expressed or implied is made by the U.S. Geological Survey as to the accuracy of the data. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the U.S. Geological Survey in the use of this data, software, or related materials. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government. The flood boundaries shown were estimated based on water stages/streamflows at the USGS streamflow-gaging station XXXXXXXX, [STATION NAME], steady-state hydraulic modeling (assuming unobstructed flow), and a digital elevation model. The hydraulic model reflects the land-cover characteristics and any bridge, dam, levee, or other hydraulic structures existing on [MONTH, YEAR]. Unique meteorological factors (timing and distribution of storm) could cause actual streamflows along the modeled reach to vary from those assumed during a flood, which may lead to deviations from the water surface elevations and inundation boundaries shown here. Additional areas may be flooded due to unanticipated backwater from major tributaries along the main stem or from localized debris- or ice-jams. Inundated areas shown should not be used for navigation, regulatory, permitting, or other legal purposes. Although USGS intends to make this server available 24 hours a day, seven days a week, timely delivery of data and products from this server through the Internet is not guaranteed. The USGS provides these maps "as-is" for a quick reference, emergency planning tool but assumes no legal liability, or responsibility resulting from the use of this information. If this series of flood inundation maps will be used in conjunction with National Weather Service (NWS) river forecasts, the user should be aware of additional uncertainties which may be inherent or factored into NWS forecast procedures. The NWS uses river forecast models to estimate the quantity and timing of water flowing through selected river reaches in the United

States. These forecast models (1) estimate the amount of runoff generated by a precipitation event, (2) compute how the water will move downstream, and (3) predict the flow and stage (water surface elevation) for the river at a given location (AHPS forecast point) throughout the forecast period (every six hours and 3 to 5 days out in many locations). For more information on AHPS forecasts, please see: [http://water.weather.gov/ahps/pcpn\\_and\\_river\\_forecasting.pdf](http://water.weather.gov/ahps/pcpn_and_river_forecasting.pdf) .

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UNCERTAINTIES AND LIMITATIONS REGARDING USE OF FLOOD INUNDATION MAPS The flood boundaries shown were estimated based on water stages/streamflows at the USGS streamflow-gaging station XXXXXXXX, [STATION NAME], steady-state hydraulic modeling (assuming unobstructed flow), and a digital elevation model. The hydraulic model reflects the land-cover characteristics and any bridge, dam, levee, or other hydraulic structures existing on [MONTH, YEAR]. Unique meteorological factors (timing and distribution of storm) could cause actual streamflows along the modeled reach to vary from those assumed during a flood, which may lead to deviations from the water surface elevations and inundation boundaries shown here. Additional areas may be flooded due to unanticipated backwater from major tributaries along the main stem or from localized debris- or ice-jams. Inundated areas shown should not be used for navigation, regulatory, permitting, or other legal purposes. Although USGS intends to make this server available 24 hours a day, seven days a week, timely delivery of data and products from this server through the Internet is not guaranteed. The USGS provides these maps "as-is" for a quick reference, emergency planning tool but assumes no legal liability, or responsibility resulting from the use of this information. If this series of flood inundation maps will be used in conjunction with National Weather Service (NWS) river forecasts, the user should be aware of additional uncertainties which may be inherent or factored into NWS forecast procedures. The NWS uses river forecast models to estimate the quantity and timing of water flowing through selected river reaches in the United States. These forecast models (1) estimate the amount of runoff generated by a precipitation event, (2) compute how the water will move downstream, and (3) predict the flow and stage (water surface elevation) for the river at a given location (AHPS forecast point) throughout the forecast period (every six hours and 3 to 5 days out in many locations). For more information on AHPS forecasts, please see: [http://water.weather.gov/ahps/pcpn\\_and\\_river\\_forecasting.pdf](http://water.weather.gov/ahps/pcpn_and_river_forecasting.pdf) .

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&lt;eaover&gt;

Each entity corresponds to an estimated flood extent area for stream stages XX-XX feet at the USGS streamgage [XXXXXXX], [XXX] River at [CITY], [STATE]. The attributes represent the USGS station ID, USGS stage height associated with the area, and NAVD88 elevation that correlates with the stage.

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[LIST AUTHORS HERE], [YEAR], Flood-inundation maps for the [XXX] River from [XXX] to [XXX], [STATE]: U.S. Geological Survey Scientific Investigations Map XXXX, XX p.

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