Missouri State Risk Management Team Meeting

Pilot Project: Missouri River Flood Inundation Maps
Technical Aspects

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Missouri River Inundation Maps
Flood Inundation Mapping (FIM) Pilot Project
- Parkville, MO to Leavenworth, KS
- River miles 377 to 398
- Mapping of different inundation areas tied to stages on the Missouri River
- Reference two (2) gages
  - Missouri River at Leavenworth, KS USGS 06820475 – recently updated to stage recording gage
  - New USGS stage recording gage at Parkville, MO
Missouri River Inundation Maps (cont’d)

Development of a process for consistent FIM for remainder of Missouri River.

- **Mapping using steady water surface profiles**
  - Storage of floodplain behind levees/unsteady routing of flow handled in stage predictions by NWS

- **Mapping behind levees**
  - Federally certified/inspected levees
    - Assume will protect until overtopped.
    - Show leveed areas threatened by flooding on maps.
  - Evaluate other levees on a case by case basis. (Will they protect to top of levee?)

- **Handling flow contributions from tributaries**
  - Break river out into reaches between tributaries.
  - Backwater from downstream reach may occur if the tributary is large (KS River).
  - Use frequency flows from studies as a template for expected coincident flows.
Missouri River Mapping

This Flood Inundation Map is publicly available on the Kansas City District, U.S. Army Corps of Engineers website:


A product of the USACE Modeling Mapping Consequences Production Center

(public release 26 Jun 2011)
Levee Protected Areas

Proposed USGS Gage
# Levees in Pilot Reach

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<thead>
<tr>
<th>Levee</th>
<th>Federal or Non-Federal</th>
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<tbody>
<tr>
<td>Vandiver-Oldham Levee, 82A; L</td>
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<td>Wolcott DD, Section 3, Item 83Sec3; R</td>
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<tr>
<td>Kansas Department of Corrections, Item 83B, R</td>
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Missouri River Mapping