A vision for a more resilient Iowa

The Iowa Watershed Approach

Larry Weber
Director, IIHR—Hydroscience & Engineering
Larry-weber@uiowa.edu
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The Iowa Watershed Approach
How can I partner with the WMAs?

How will we be updated on projects?

How will the built projects be monitored?

Will the PowerPoint from the meeting be made available on the watershed website?
The Iowa Watershed Approach:
Reducing Flooding and Advancing Water Quality

HUD Disaster Resilience Grant to Iowa: $96.0 million
The Iowa Watershed Approach (IWA) is a vision for Iowa’s future that voluntarily engages stakeholders throughout the watershed to achieve common goals, while moving toward a more resilient state.

Nine Participating Watersheds:
- Clear Creek Watershed
- Dubuque/Rее Branch Watershed
- East Nishnabotna Watershed
- English River Watershed
- Middle Cedar Watershed
- North Raccoon Watershed
- Upper Iowa Watershed
- Upper Wapsipinicon Watershed
- West Nishnabotna Watershed

http://www.iihr.uiowa.edu/iwa/
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Next steps

Qtr. 4 2016 – Flood resilience program overview
Qtr. 1 2017 – Hydrologic assessment update & sensor deployments
Qtr. 2 2017 – Flood resilience program update
Qtr. 3 2017 – Draft of hydrologic assessment
Qtr. 4 2017 – Hydrologic assessment complete
Flooding trends in Iowa and across the Midwest

Antonio Arenas
Research Engineer, IIHR—Hydroscience & Engineering
antonio-arenasamado@uiowa.edu
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Trends in floods and heavy rainfall events
Trends show more floods in recent decades
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Trends show more frequent floods and heavy rainfall

Increased flooding

Increased heavy rainfall
Conclusions

• An increase in frequency, not magnitude, of flood events is detectable from observational records.

• Similar results are found when analyzing discharge and rainfall.

• However, directly attributing changes in discharge, precipitation, and temperature to human impacts on climate is very challenging to do using only observational records.
Hydrology
Hydrology

Upper Iowa River. Historic Crests

<table>
<thead>
<tr>
<th>At Decorah</th>
<th>At Dorchester</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.90 ft on 06/09/2008</td>
<td>24.30 ft on 08/25/2016 (P)</td>
</tr>
<tr>
<td>15.20 ft on 05/29/1941</td>
<td>22.46 ft on 06/09/2008</td>
</tr>
<tr>
<td>14.35 ft on 08/17/1993</td>
<td>22.20 ft on 02/28/1948</td>
</tr>
<tr>
<td>13.68 ft on 08/24/2016 (P)</td>
<td>21.80 ft on 05/30/1941</td>
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<tr>
<td>13.08 ft on 03/27/1961</td>
<td>20.89 ft on 03/05/1937</td>
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<tr>
<td>12.31 ft on 06/01/2000</td>
<td>20.02 ft on 06/23/2013</td>
</tr>
<tr>
<td>12.20 ft on 03/17/1945</td>
<td>20.00 ft on 08/17/1993</td>
</tr>
<tr>
<td>12.10 ft on 01/05/1946</td>
<td>19.34 ft on 03/07/1950</td>
</tr>
<tr>
<td>11.85 ft on 02/28/1948</td>
<td>19.20 ft on 07/26/1953</td>
</tr>
<tr>
<td>11.67 ft on 06/23/2013</td>
<td>18.95 ft on 09/06/1946</td>
</tr>
</tbody>
</table>

10 miles

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Rain September 2016
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August 2016 / Stream response
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Agricultural Conservation Planning Framework: Staff Creek Watershed

Conservation Practices:
- Drainage Water Management
- Grassed Waterways
- Buffer Strips
- Water and Sediment Control Basins (WASCOBs)
- Nutrient Removal Wetlands
- Saturated Buffers

Further Information:
http://northcentralwater.org/acpf/
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Grassed Waterways
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Nutrient Removal Wetlands
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Iowa Flood Center
The University of Iowa
100 C. Maxwell Stanley Hydraulics Laboratory
Iowa City, IA 52242

319-384-1729
www.iowafloodcenter.org
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