Micro Model Depth in Feet Above (+) or Below (-) 1996 Prototype
Side Channel Openings
Savanna Bay Flow Measurements vs. SMS Modeling Results
Savanna Bay, 40,000 cfs

Side Channel Openings
Savanna Bay Flow Measurements vs. SMS Modeling Results
Savanna Bay, 49,000 cfs
Prototype Bathymetry
(Flow of 40,000 cfs)

Velocity (feet/sec)

<table>
<thead>
<tr>
<th>Velocity (feet/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
</tr>
<tr>
<td>2.0</td>
</tr>
<tr>
<td>1.8</td>
</tr>
<tr>
<td>1.6</td>
</tr>
<tr>
<td>1.4</td>
</tr>
<tr>
<td>1.2</td>
</tr>
<tr>
<td>1.0</td>
</tr>
<tr>
<td>0.8</td>
</tr>
<tr>
<td>0.6</td>
</tr>
</tbody>
</table>
Prototype Bathymetry
(Flow of 124,000 cfs)

Vector Velocity Scale:
→ 5 feet/sec
Micro Model Base Test
Resultant Bathymetry
(Flow of 124,000 cfs)

Vector Velocity Scale:

5 feet/sec
Micro Model Alternative 2
Resultant Bathymetry,
N-Value of 0.022 on the
Closing Dams
(Flow of 124,000 cfs)
Micro Model Alternative 2
Resultant Bathymetry,
N-Value of 0.050 on the
Closing Dams
(Flow of 124,000 cfs)

Vector Velocity Scale:
\[ \rightarrow \]
5 feet/sec

U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Navigation Improvement Study of the Upper Mississippi
River Near Savanna Bay, Pool 13
Plan View of Depth - Averaged Velocity Vectors,
SMS Model
Micro Model Alternative 4
Resultant Bathymetry,
N-Value of 0.022 on
Emergent Closing Dams
(Flow of 124,000 cfs)

Vector Velocity Scale:
5 feet/sec
Micro Model Alternative 4
Resultant Bathymetry,
N-Value of 0.050 on
Emergent Closing Dams
(Flow of 124,000 cfs)

Vector Velocity Scale:
→ 5 feet/sec
Micro Model Alternative 5
Resultant Bathymetry,
N-Value of 0.050 on
Submergent Wing Dams
(Flow of 124,000 cfs)

Vector Velocity Scale:
\[ \rightarrow \]
5 feet/sec
Micro Model Alternative 5
Resultant Bathymetry,
Option Includes the Third
Opening into the Side Channel
Totally Blocked
(Flow of 124,000 cfs)

Vector Velocity Scale:

5 feet/sec
Micro Model Alternative 5
Resultant Bathymetry,
Option Includes the Navigable
Channel Bed Elevations Lowered
Riverward of the Third Island
(Flow of 124,000 cfs)

Vector Velocity Scale:

5 feet/sec
Micro Model Alternative 9
Resultant Bathymetry
With 3 Closing Dams
(Flow of 124,000 cfs)

Vector Velocity Scale:
→
5 feet/sec