# Movable Bridge Openings 2014-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Bridge Openings</th>
<th>Water Level in July (ft. above sea level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>14,003</td>
<td>578.9</td>
</tr>
<tr>
<td>2015</td>
<td>21,835</td>
<td>579.8</td>
</tr>
<tr>
<td>2016</td>
<td>21,904</td>
<td>580.2</td>
</tr>
<tr>
<td>2017</td>
<td>23,244</td>
<td>580.7</td>
</tr>
</tbody>
</table>
## Movable Bridge Openings

**By Bridge**

<table>
<thead>
<tr>
<th>Bridge</th>
<th>Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Wisconsin Avenue</td>
<td>3,649</td>
</tr>
<tr>
<td>West Michigan Street</td>
<td>3,559</td>
</tr>
<tr>
<td>West Wells Street</td>
<td>3,305</td>
</tr>
<tr>
<td>North Water Street</td>
<td>3,096</td>
</tr>
<tr>
<td>North Broadway</td>
<td>3,073</td>
</tr>
<tr>
<td>East Clybourn Street</td>
<td>1,876</td>
</tr>
<tr>
<td>West St. Paul Avenue</td>
<td>1,712</td>
</tr>
<tr>
<td>South Kinnickinnic Avenue</td>
<td>1,043</td>
</tr>
<tr>
<td>West Kilbourn Avenue</td>
<td>680</td>
</tr>
<tr>
<td>West State Street</td>
<td>635</td>
</tr>
<tr>
<td>South 1st Street</td>
<td>276</td>
</tr>
<tr>
<td>North Plankinton Avenue</td>
<td>226</td>
</tr>
<tr>
<td>Remaining 8 Bridges</td>
<td>114</td>
</tr>
<tr>
<td><strong>2017 Total</strong></td>
<td><strong>23,244</strong></td>
</tr>
</tbody>
</table>
Movable Bridge Operations

Bridge Opening Cost

**Movable Bridge Staff**
- Bridge Operator Supervisor
- Bridge Operators – 28 during boating season
- Bridge Electricians – 2 full time
- Combined annual salary w/ benefits: $2,217,781

**Movable Bridges**
- 21 Movable Bridges
- 23,244 openings in 2017
Movable Bridge Operations
Bridge Opening Cost

Cost per Bridge Opening

- $2,217,781 / 23,244 = $95.41 per opening

Outside Revenue to Offset Bridge Opening Cost

- WisDOT Lift Bridge Aid for staffing Broadway, Wells, Kinnickinnic, and State St. Bridges
- City does not receive revenue from sales tax, food and beverage taxes, or boat slip fees
Movable Bridge Operations
Operation Improvements

What has been done to Improve Bridge Operations:

Bells
- Bells no longer ring throughout bridge opening
- Bells turn off after traffic gates are down and while traffic gates are being raised
- Only two of the four bells will ring at Broadway, Water and Wells

Limiting Openings
- Bridge Operators were instructed to give traffic either five minutes or three green light cycles to allow traffic to clear before performing another bridge opening
- Openings staged to let several boats through at one opening
- Vehicular and pedestrian traffic taken into account prior to bridge opening

Design Improvements
- Speed improvements to Wisconsin Ave., Juneau Ave., Clybourn St., and Wells St. Bridges
Federal Code of Regulations

City is required to open for commercial boats rated for 50 or more passengers per Title 33 of the Code of Federal Regulations, Chapter I, Subchapter J, § 117.1093, paragraph a.

The draws of each bridge listed in this section shall open as soon as possible for the passage of public vessels of the United States, vessels carrying United States mail, vessels licensed to carry 50 or more passengers when on their regular routes, and fireboats of the City of Milwaukee.
Movable Bridge Operations
Commercial Boats with 50 or more Passengers

Major Commercial Boat Owners

Milwaukee Boat Line
Docks: West side of the river, south of Michigan
Boat: Vista King, Voyager

Edelweiss/ Milwaukee River Cruise Lines
Docks: South of Highland Avenue, North of Wells Street (Pier 106)
Boats: Edelweiss, Edelweiss 2, Harbor Lady, Miss Wisconsin, Spirit of the Lake
Movable Bridge Operations
Boats with less than 50 Passengers

Federal Code of Regulations

The draws of all bridges across the Milwaukee River shall open on signal if at least two hours notice is given; except that, from 7:30 a.m. to 8:30 a.m. and 4:30 p.m. to 5:30 p.m., the draws need not be opened.

- The exceptions are Broadway, Water and Michigan do not require a two hour notice (bridge operator on duty)
Other Boat Owners

Riverwalk Boat Tours and Rentals
Docks: Pere Marquette Park
Boats: Pontoon boats – Milwaukee Maiden, Brew City Queen

Milwaukee Paddle Tavern
Docks: The Harp Irish Pub, south of Juneau Avenue
Boats: Four paddle boats

Private Boat Owners
Movable Bridge Operations

Bridge Hours

Current regulations restrict bridge openings between the hours of 7:30 am and 8:30 am, and between 4:30 pm and 5:30 pm, excluding vessels licensed to carry 50 or more passengers.

Getting the word out:

- Met with Milwaukee Boat Line and Milwaukee River Cruise Lines (commercial boat owners with larger vessels)
- Discussed with Riverwalk Boat Tours & Rentals and Milwaukee Paddle Tavern
- Addressed during Coast Guard meeting on April 20th
- Public Works Committee meetings