

Battery - January 2020

Times and Heights of High and Low Waters

1 00:34 3.8 06:25 0.9 Wed 12:39 4.1 19:01 0.5	9 06:41 5.0 13:32 -0.4 Thu 19:17 4.1	17 01:23 4.7 07:47 0.1 Fri 13:35 4.4 ☾ 20:16 -0.3	25 02:21 -0.2 08:28 5.0 Sat 14:58 -0.5 20:57 4.2
2 01:19 3.7 07:26 1.1 Thu 13:25 3.9 19:53 0.6	10 01:25 -0.3 07:23 5.3 Fri 14:18 -0.6 ☉ 20:00 4.3	18 02:20 4.7 08:55 0.1 Sat 14:37 4.1 21:16 -0.2	26 03:04 -0.1 09:10 4.9 Sun 15:37 -0.4 21:40 4.2
3 02:05 3.8 08:30 1.1 Fri 14:12 3.7 ☾ 20:44 0.6	11 02:12 -0.5 08:06 5.4 Sat 15:04 -0.8 20:47 4.4	19 03:21 4.7 09:58 0.0 Sun 15:43 4.0 22:12 -0.2	27 03:44 -0.0 09:51 4.7 Mon 16:15 -0.3 22:24 4.1
4 02:51 3.8 09:28 0.9 Sat 15:05 3.6 21:33 0.5	12 03:00 -0.6 08:53 5.4 Sun 15:49 -0.8 21:37 4.4	20 04:23 4.8 10:56 -0.1 Mon 16:50 3.9 23:06 -0.2	28 04:23 0.2 10:33 4.5 Tue 16:51 -0.1 23:07 4.0
5 03:40 4.0 10:20 0.7 Sun 16:02 3.5 22:19 0.4	13 03:48 -0.6 09:44 5.3 Mon 16:35 -0.8 22:32 4.5	21 05:22 4.9 11:50 -0.3 Tue 17:50 4.0 23:58 -0.2	29 05:01 0.4 11:15 4.3 Wed 17:26 0.1 23:48 3.9
6 04:29 4.2 11:10 0.5 Mon 16:58 3.6 23:04 0.3	14 04:38 -0.5 10:41 5.2 Tue 17:23 -0.7 23:30 4.6	22 06:15 5.0 12:41 -0.4 Wed 18:42 4.1	30 05:41 0.7 11:56 4.0 Thu 18:01 0.4
7 05:17 4.5 11:57 0.2 Tue 17:49 3.8 23:50 0.1	15 05:33 -0.3 11:38 4.9 Wed 18:16 -0.5	23 00:48 -0.2 07:03 5.1 Thu 13:30 -0.5 19:29 4.2	31 00:26 3.9 06:30 0.9 Fri 12:37 3.8 18:40 0.6
8 06:00 4.8 12:45 -0.1 Wed 18:34 3.9 00:37 -0.1	16 00:26 4.6 06:37 -0.1 Thu 12:36 4.7 19:15 -0.4	24 01:36 -0.2 07:46 5.1 Fri 14:15 -0.5 ● 20:13 4.2	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
 North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes.
 North River is running flood 15 feet below the surface 1 hour before turning
 from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes
 before the H.W.S. East River and low water slack occurs about 20 minutes
 before the L.W.S. North River.

Battery - February 2020

Times and Heights of High and Low Waters

1 01:03 3.9 07:34 1.0 Sat 13:20 3.6 19:31 0.7	9 01:56 -0.7 07:53 5.5 Sun 14:41 -1.0 ○ 20:29 4.8	17 02:56 4.7 09:39 0.2 Mon 15:27 3.8 21:52 0.2	25 03:21 -0.0 09:24 4.7 Tue 15:43 -0.2 21:47 4.4
2 01:42 3.9 08:42 1.0 Sun 14:09 3.4 ● 20:34 0.7	10 02:46 -0.9 08:41 5.6 Mon 15:27 -1.1 21:18 5.0	18 04:01 4.6 10:37 0.1 Tue 16:35 3.8 22:48 0.2	26 03:58 0.1 10:02 4.5 Wed 16:15 -0.0 22:23 4.3
3 02:28 4.0 09:42 0.8 Mon 15:07 3.4 21:33 0.6	11 03:36 -0.9 09:32 5.5 Tue 16:12 -1.1 22:11 5.0	19 05:04 4.7 11:31 0.0 Wed 17:36 4.0 23:41 0.1	27 04:34 0.3 10:39 4.3 Thu 16:44 0.2 22:55 4.3
4 03:24 4.1 10:36 0.6 Tue 16:13 3.5 22:28 0.4	12 04:26 -0.8 10:26 5.3 Wed 16:59 -0.9 23:07 5.1	20 05:59 4.8 12:21 -0.1 Thu 18:28 4.1	28 05:08 0.5 11:16 4.1 Fri 17:09 0.4 23:26 4.2
5 04:27 4.4 11:28 0.3 Wed 17:15 3.7 23:21 0.2	13 05:19 -0.6 11:23 5.0 Thu 17:48 -0.6	21 00:31 0.1 06:47 4.9 Fri 13:07 -0.2 19:13 4.3	29 05:45 0.7 11:55 3.8 Sat 17:35 0.6 23:58 4.2
6 05:26 4.7 12:18 -0.1 Thu 18:08 4.0	14 00:02 5.0 06:19 -0.3 Fri 12:20 4.6 18:44 -0.3	22 01:17 -0.0 07:29 4.9 Sat 13:51 -0.3 19:54 4.4	
7 00:13 -0.2 06:18 5.0 Fri 13:07 -0.4 18:55 4.3	15 00:58 4.9 07:25 0.0 Sat 13:19 4.3 ● 19:47 -0.0	23 02:01 -0.1 08:09 5.0 Sun 14:31 -0.3 ● 20:33 4.5	
8 01:05 -0.5 07:06 5.3 Sat 13:55 -0.7 19:42 4.6	16 01:55 4.8 08:34 0.2 Sun 14:20 4.0 20:51 0.2	24 02:42 -0.1 08:47 4.9 Mon 15:08 -0.3 21:11 4.5	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
 North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes.
 North River is running flood 15 feet below the surface 1 hour before turning
 from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes
 before the H.W.S. East River and low water slack occurs about 20 minutes
 before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - March 2020

Times and Heights of High and Low Waters

1 06:34 0.9 12:36 3.7 Sun 18:13 0.8	9 02:39 -0.8 08:37 5.7 Mon 15:16 -1.0 ○ 21:08 5.4	17 03:31 4.6 10:16 0.4 Tue 16:09 3.9 22:31 0.7	25 03:58 0.1 09:56 4.7 Wed 16:09 0.0 22:10 4.8
2 00:38 4.2 07:51 1.0 Mon 13:24 3.5 ● 19:15 0.9	10 03:31 -1.0 09:25 5.7 Tue 16:02 -1.1 21:57 5.6	18 04:36 4.5 11:14 0.4 Wed 17:16 4.0 23:29 0.6	26 04:35 0.1 10:31 4.5 Thu 16:40 0.2 22:38 4.7
3 01:28 4.2 09:03 0.9 Tue 14:23 3.5 20:48 0.9	11 04:21 -1.0 10:16 5.6 Wed 16:47 -1.0 22:48 5.6	19 05:40 4.5 12:07 0.3 Thu 18:16 4.1	27 05:10 0.2 11:07 4.3 Fri 17:08 0.3 23:03 4.7
4 02:29 4.3 10:03 0.7 Wed 15:32 3.6 21:57 0.7	12 05:11 -0.9 11:09 5.3 Thu 17:33 -0.8 23:41 5.6	20 00:21 0.5 06:37 4.6 Fri 12:55 0.2 19:06 4.3	28 05:44 0.4 11:43 4.1 Sat 17:32 0.5 23:31 4.6
5 03:42 4.4 10:58 0.4 Thu 16:42 3.9 22:57 0.3	13 06:03 -0.7 12:06 5.0 Fri 18:22 -0.5	21 01:10 0.4 07:24 4.7 Sat 13:39 0.1 19:50 4.5	29 06:19 0.6 12:22 3.9 Sun 18:00 0.7
6 04:55 4.8 11:50 0.0 Fri 17:41 4.3 23:52 -0.1	14 00:37 5.4 07:00 -0.3 Sat 13:04 4.6 19:16 -0.0	22 01:55 0.2 08:06 4.8 Sun 14:20 -0.0 20:29 4.7	30 00:08 4.6 07:01 0.8 Mon 13:06 3.8 18:38 0.9
7 05:56 5.1 12:40 -0.4 Sat 18:33 4.7	15 01:33 5.1 08:03 0.1 Sun 14:03 4.3 20:19 0.4	23 02:38 0.1 08:44 4.9 Mon 14:59 -0.1 21:05 4.8	31 00:56 4.5 08:09 1.0 Tue 13:58 3.8 19:35 1.0
8 00:47 -0.5 07:48 5.5 Sun 14:29 -0.7 20:21 5.1	16 02:30 4.9 09:11 0.3 Mon 15:04 4.1 ● 21:27 0.6	24 03:19 0.1 09:20 4.8 Tue 15:35 -0.1 ● 21:38 4.8	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - April 2020

Times and Heights of High and Low Waters

1 Wed ☾	01:52 4.5 09:27 0.9 14:56 3.8 21:14 1.0	9 Thu	04:05 -1.0 09:58 5.5 16:22 -0.8 22:23 6.0	17 Fri	05:08 4.4 11:36 0.5 17:46 4.3 23:56 0.8	25 Sat	04:49 0.2 10:40 4.3 16:38 0.5 22:24 5.0
2 Thu	02:56 4.5 10:32 0.7 16:04 3.9 22:33 0.8	10 Fri	04:55 -0.9 10:52 5.2 17:09 -0.5 23:16 5.9	18 Sat	06:04 4.5 12:21 0.4 18:37 4.5	26 Sun	05:26 0.3 11:18 4.1 17:08 0.6 22:56 5.0
3 Fri	04:10 4.6 11:29 0.4 17:13 4.2 23:36 0.4	11 Sat	05:46 -0.6 11:50 4.9 17:57 -0.1	19 Sun	00:44 0.7 06:53 4.6 13:04 0.3 19:20 4.7	27 Mon	06:03 0.5 12:01 4.0 17:41 0.8 23:39 4.9
4 Sat	05:26 4.9 12:21 0.0 18:15 4.7	12 Sun	00:12 5.6 06:40 -0.2 12:49 4.6 18:51 0.3	20 Mon	01:29 0.5 07:36 4.7 13:44 0.3 19:58 4.9	28 Tue	06:47 0.7 12:51 4.0 18:22 0.9
5 Sun	00:33 0.0 06:31 5.2 13:11 -0.3 19:09 5.2	13 Mon	01:08 5.2 07:39 0.2 13:48 4.4 19:52 0.7	21 Tue	02:12 0.3 08:15 4.7 14:23 0.2 20:33 5.1	29 Wed	00:33 4.8 07:47 0.8 13:44 4.0 19:23 1.1
6 Mon	01:28 -0.4 07:26 5.5 14:00 -0.6 19:58 5.6	14 Tue ☾	02:06 4.9 08:44 0.5 14:47 4.2 21:00 1.0	22 Wed	02:54 0.2 08:52 4.7 14:59 0.2 21:05 5.1	30 Thu ☾	01:33 4.8 08:58 0.8 14:42 4.1 20:55 1.1
7 Tue	02:22 -0.7 08:17 5.6 14:49 -0.8 20:46 5.9	15 Wed	03:05 4.6 09:48 0.6 15:47 4.1 22:06 1.0	23 Thu ●	03:34 0.1 09:28 4.6 15:35 0.3 21:33 5.1		
8 Wed ○	03:14 -0.9 09:07 5.6 15:36 -0.9 21:34 6.1	16 Thu	04:06 4.5 10:45 0.6 16:48 4.1 23:05 1.0	24 Fri	04:12 0.1 10:04 4.5 16:07 0.4 21:58 5.1		

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - May 2020

Times and Heights of High and Low Waters

1 02:37 4.8 10:03 0.6 Fri 15:44 4.3 22:13 0.8	9 04:39 -0.7 10:35 5.0 Sat 16:47 -0.2 22:53 5.9	17 05:22 4.3 11:42 0.6 Sun 17:59 4.6	25 05:09 0.2 10:59 4.2 Mon 16:52 0.6 22:37 5.2
2 03:47 4.8 11:00 0.3 Sat 16:48 4.6 23:17 0.5	10 05:29 -0.5 11:33 4.8 Sun 17:35 0.2 23:48 5.6	18 00:13 0.9 06:14 4.3 Mon 12:24 0.5 18:44 4.8	26 05:50 0.3 11:47 4.2 Tue 17:32 0.7 23:26 5.1
3 04:58 4.9 11:52 -0.0 Sun 17:50 5.1	11 06:20 -0.2 12:32 4.6 Mon 18:27 0.6	19 00:59 0.7 07:01 4.4 Tue 13:04 0.5 19:23 5.0	27 06:35 0.4 12:40 4.2 Wed 18:19 0.8
4 00:14 0.1 06:05 5.1 Mon 12:42 -0.3 18:45 5.5	12 00:45 5.2 07:14 0.2 Tue 13:29 4.4 19:25 0.9	20 01:43 0.5 07:43 4.4 Wed 13:44 0.4 19:58 5.2	28 00:23 5.0 07:30 0.5 Thu 13:33 4.3 19:22 0.9
5 01:10 -0.3 07:04 5.3 Tue 13:32 -0.5 19:36 5.9	13 01:40 4.9 08:13 0.5 Wed 14:24 4.3 20:30 1.2	21 02:26 0.3 08:23 4.5 Thu 14:23 0.4 20:30 5.3	29 01:23 5.0 08:32 0.5 Fri 14:28 4.5 20:42 0.9
6 02:05 -0.6 07:57 5.3 Wed 14:21 -0.6 20:24 6.2	14 02:35 4.6 09:13 0.7 Thu 15:19 4.2 ☾ 21:35 1.3	22 03:09 0.2 09:01 4.4 Fri 15:01 0.4 ● 20:58 5.3	30 02:24 4.9 09:34 0.3 Sat 15:25 4.7 ☾ 21:55 0.7
7 02:58 -0.8 08:48 5.3 Thu 15:10 -0.6 ○ 21:12 6.3	15 03:30 4.4 10:09 0.7 Fri 16:14 4.3 22:34 1.2	23 03:49 0.1 09:38 4.4 Sat 15:39 0.5 21:27 5.3	31 03:28 4.8 10:31 0.2 Sun 16:25 5.0 22:59 0.5
8 03:49 -0.8 09:40 5.2 Fri 15:59 -0.5 22:01 6.1	16 04:26 4.3 10:58 0.7 Sat 17:09 4.4 23:26 1.1	24 04:29 0.1 10:16 4.3 Sun 16:15 0.5 21:58 5.3	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - June 2020

Times and Heights of High and Low Waters

1 04:35 4.8 11:24 -0.1 Mon 17:25 5.3 23:57 0.1	9 05:57 -0.1 12:11 4.5 Tue 18:03 0.6	17 00:27 0.8 06:22 4.1 Wed 12:23 0.7 18:43 4.9	25 06:19 0.0 12:24 4.5 Thu 18:16 0.5
2 05:42 4.8 12:15 -0.2 Tue 18:22 5.7	10 00:20 5.2 06:45 0.2 Wed 13:05 4.4 18:56 1.0	18 01:12 0.6 07:09 4.1 Thu 13:05 0.6 19:21 5.1	26 00:16 5.2 07:09 0.1 Fri 13:18 4.7 19:17 0.6
3 00:53 -0.2 06:44 4.9 Wed 13:06 -0.3 19:15 6.0	11 01:12 4.9 07:37 0.4 Thu 13:56 4.4 19:54 1.2	19 01:58 0.4 07:53 4.2 Fri 13:47 0.5 19:56 5.3	27 01:14 5.1 08:05 0.1 Sat 14:11 4.8 20:27 0.7
4 01:48 -0.4 07:40 5.0 Thu 13:57 -0.3 20:04 6.1	12 02:02 4.6 08:31 0.6 Fri 14:45 4.3 20:56 1.3	20 02:42 0.2 08:33 4.3 Sat 14:31 0.5 20:29 5.4	28 02:12 4.9 09:05 0.1 Sun 15:06 5.0 ☾ 21:38 0.6
5 02:41 -0.6 08:33 5.0 Fri 14:48 -0.3 ☉ 20:53 6.2	13 02:51 4.4 09:24 0.7 Sat 15:34 4.3 ☾ 21:56 1.3	21 03:26 0.1 09:13 4.3 Sun 15:14 0.4 ● 21:04 5.4	29 03:12 4.8 10:03 0.1 Mon 16:03 5.2 22:42 0.4
6 03:32 -0.6 09:25 4.9 Sat 15:38 -0.2 21:41 6.0	14 03:41 4.2 10:13 0.8 Sun 16:24 4.4 22:50 1.2	22 04:08 -0.0 09:54 4.4 Mon 15:57 0.4 21:42 5.5	30 04:16 4.6 10:59 0.0 Tue 17:03 5.4 23:41 0.2
7 04:21 -0.6 10:19 4.8 Sun 16:27 0.0 22:32 5.8	15 04:35 4.1 10:58 0.8 Mon 17:13 4.6 23:40 1.0	23 04:50 -0.1 10:40 4.4 Tue 16:40 0.4 22:27 5.4	
8 05:09 -0.4 11:14 4.7 Mon 17:15 0.3 23:26 5.5	16 05:30 4.1 11:41 0.7 Tue 18:00 4.7	24 05:33 -0.0 11:31 4.4 Wed 17:25 0.4 23:19 5.3	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - July 2020

Times and Heights of High and Low Waters

1 05:24 4.5 11:52 -0.0 Wed 18:02 5.6	9 06:13 0.2 12:33 4.5 Thu 18:24 0.9	17 00:41 0.7 06:34 4.0 Fri 12:29 0.7 18:43 5.0	25 00:05 5.4 06:44 -0.2 Sat 12:57 5.1 19:05 0.4
2 00:37 -0.0 06:29 4.6 Thu 12:45 -0.1 18:58 5.8	10 00:39 4.8 06:57 0.4 Fri 13:20 4.4 19:15 1.2	18 01:28 0.5 07:22 4.1 Sat 13:16 0.6 19:25 5.3	26 01:02 5.1 07:38 -0.0 Sun 13:51 5.2 20:11 0.5
3 01:32 -0.2 07:27 4.7 Fri 13:37 -0.1 19:49 5.9	11 01:25 4.6 07:42 0.6 Sat 14:05 4.4 20:12 1.3	19 02:14 0.3 08:05 4.3 Sun 14:04 0.4 20:05 5.5	27 01:59 4.9 08:37 0.1 Mon 14:45 5.3 ☾ 21:21 0.6
4 02:24 -0.3 08:20 4.7 Sat 14:29 -0.0 20:37 5.9	12 02:10 4.3 08:31 0.8 Sun 14:49 4.4 21:13 1.4	20 03:00 0.0 08:47 4.5 Mon 14:52 0.3 ● 20:46 5.6	28 02:59 4.6 09:38 0.2 Tue 15:43 5.4 22:26 0.5
5 03:14 -0.4 09:10 4.7 Sun 15:19 0.1 ○ 21:25 5.8	13 02:57 4.1 09:21 0.9 Mon 15:33 4.4 ☾ 22:11 1.3	21 03:45 -0.2 09:31 4.6 Tue 15:40 0.1 21:29 5.7	29 04:03 4.4 10:38 0.3 Wed 16:44 5.4 23:26 0.3
6 04:02 -0.4 10:01 4.7 Mon 16:07 0.2 22:13 5.6	14 03:47 3.9 10:10 1.0 Tue 16:20 4.5 23:04 1.2	22 04:28 -0.3 10:17 4.8 Wed 16:27 0.1 22:16 5.7	30 05:12 4.4 11:34 0.3 Thu 17:46 5.5
7 04:47 -0.3 10:52 4.6 Tue 16:53 0.4 23:01 5.4	15 04:42 3.9 10:57 0.9 Wed 17:09 4.6 23:53 1.0	23 05:12 -0.3 11:08 4.9 Thu 17:15 0.1 23:09 5.5	31 00:22 0.2 06:18 4.4 Fri 12:28 0.3 18:44 5.6
8 05:30 -0.1 11:43 4.6 Wed 17:38 0.6 23:51 5.1	16 05:40 3.9 11:43 0.9 Thu 17:57 4.8	24 05:56 -0.3 12:03 5.0 Fri 18:06 0.2	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - August 2020

Times and Heights of High and Low Waters

1 01:15 0.0 07:16 4.5 Sat 13:21 0.2 19:36 5.6	9 00:46 4.5 06:50 0.7 Sun 13:19 4.5 19:25 1.3	17 01:45 0.2 07:38 4.5 Mon 13:41 0.3 19:42 5.6	25 01:47 4.8 08:11 0.3 Tue 14:25 5.4 ☾ 21:03 0.5
2 02:06 -0.1 08:07 4.7 Sun 14:12 0.2 20:23 5.7	10 01:30 4.3 07:28 0.9 Mon 13:58 4.5 20:24 1.4	18 02:32 -0.1 08:22 4.8 Tue 14:32 0.1 20:27 5.8	26 02:49 4.5 09:16 0.5 Wed 15:24 5.3 22:09 0.5
3 02:54 -0.2 08:54 4.8 Mon 15:01 0.2 ☉ 21:07 5.6	11 02:14 4.0 08:14 1.1 Tue 14:37 4.5 ☾ 21:28 1.4	19 03:18 -0.3 09:06 5.1 Wed 15:22 -0.2 ● 21:12 5.9	27 03:54 4.3 10:20 0.6 Thu 16:27 5.3 23:10 0.5
4 03:39 -0.2 09:39 4.8 Tue 15:47 0.3 21:51 5.5	12 03:02 3.9 09:13 1.2 Wed 15:19 4.5 22:27 1.3	20 04:02 -0.5 09:52 5.3 Thu 16:11 -0.3 22:00 5.8	28 05:02 4.3 11:19 0.6 Fri 17:31 5.3
5 04:21 -0.1 10:24 4.8 Wed 16:30 0.4 22:34 5.3	13 03:57 3.8 10:12 1.2 Thu 16:09 4.6 23:20 1.1	21 04:46 -0.6 10:43 5.5 Fri 17:01 -0.2 22:52 5.7	29 00:05 0.3 06:07 4.4 Sat 12:14 0.5 18:30 5.3
6 05:00 0.0 11:10 4.7 Thu 17:12 0.6 23:18 5.0	14 04:58 3.8 11:07 1.1 Fri 17:07 4.7	22 05:31 -0.5 11:36 5.5 Sat 17:53 -0.1 23:49 5.4	30 00:56 0.2 07:03 4.6 Sun 13:06 0.5 19:21 5.4
7 05:38 0.2 11:55 4.6 Fri 17:53 0.8	15 00:10 0.9 05:58 4.0 Sat 11:59 0.9 18:05 5.0	23 06:18 -0.3 12:32 5.6 Sun 18:49 0.2	31 01:44 0.1 07:51 4.8 Mon 13:55 0.4 20:06 5.5
8 00:02 4.8 06:14 0.4 Sat 12:38 4.6 18:36 1.1	16 00:58 0.6 06:51 4.2 Sun 12:50 0.6 18:56 5.3	24 00:48 5.1 07:10 0.0 Mon 13:28 5.5 19:54 0.4	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - September 2020

Times and Heights of High and Low Waters

1 02:29 0.0 08:34 4.9 Tue 14:41 0.4 20:47 5.5	9 01:35 4.0 06:59 1.2 Wed 13:36 4.5 20:42 1.4	17 02:48 -0.5 08:41 5.6 Thu 15:03 -0.4 ● 20:53 5.9	25 03:43 4.3 10:03 0.9 Fri 16:08 5.1 22:50 0.5
2 03:11 -0.0 09:14 5.0 Wed 15:25 0.4 ○ 21:26 5.4	10 02:23 3.8 07:54 1.4 Thu 14:21 4.5 ● 21:49 1.4	18 03:34 -0.7 09:27 5.9 Fri 15:54 -0.5 21:41 5.8	26 04:48 4.3 11:03 0.8 Sat 17:12 5.0 23:44 0.4
3 03:50 0.0 09:53 5.0 Thu 16:06 0.4 22:05 5.2	11 03:17 3.8 09:25 1.4 Fri 15:16 4.6 22:47 1.2	19 04:19 -0.7 10:16 6.0 Sat 16:45 -0.5 22:34 5.6	27 05:50 4.5 11:57 0.7 Sun 18:10 5.1
4 04:26 0.1 10:32 4.9 Fri 16:45 0.5 22:44 5.0	12 04:20 3.9 10:35 1.2 Sat 16:21 4.7 23:39 0.9	20 05:05 -0.5 11:09 6.0 Sun 17:37 -0.3 23:31 5.3	28 00:33 0.3 06:44 4.7 Mon 12:47 0.6 19:00 5.1
5 05:00 0.3 11:10 4.9 Sat 17:24 0.7 23:24 4.7	13 05:24 4.1 11:33 0.9 Sun 17:29 5.0	21 05:52 -0.3 12:06 5.8 Mon 18:32 -0.0	29 01:17 0.2 07:29 4.9 Tue 13:34 0.5 19:43 5.2
6 05:31 0.5 11:47 4.8 Sun 18:02 0.9	14 00:28 0.5 06:20 4.4 Mon 12:27 0.5 18:28 5.3	22 00:33 4.9 06:45 0.1 Tue 13:05 5.6 19:34 0.3	30 01:59 0.1 08:09 5.0 Wed 14:18 0.4 20:22 5.2
7 00:07 4.4 05:59 0.8 Mon 12:23 4.7 18:43 1.2	15 01:15 0.1 07:10 4.9 Tue 13:20 0.2 19:19 5.6	23 01:35 4.7 07:46 0.5 Wed 14:04 5.4 20:42 0.5	
8 00:50 4.2 06:25 1.0 Tue 12:58 4.6 19:34 1.3	16 02:02 -0.2 07:56 5.3 Wed 14:12 -0.2 20:06 5.9	24 02:38 4.4 08:55 0.8 Thu 15:05 5.2 ● 21:50 0.6	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - October 2020

Times and Heights of High and Low Waters

1 Thu ○	02:39 0.1 08:46 5.1 15:01 0.4 20:59 5.1	9 Fri	01:51 3.8 07:09 1.3 13:37 4.6 21:11 1.2	17 Sat	03:06 -0.8 09:03 6.2 15:37 -0.7 21:23 5.6	25 Sun	04:26 4.3 10:42 0.9 16:45 4.7 23:17 0.4
2 Fri	03:16 0.1 09:21 5.2 15:41 0.4 21:35 5.0	10 Sat ◐	02:46 3.8 08:41 1.4 14:38 4.6 22:14 1.0	18 Sun	03:53 -0.7 09:52 6.2 16:29 -0.7 22:16 5.3	26 Mon	05:25 4.4 11:36 0.8 17:41 4.7
3 Sat	03:51 0.2 09:54 5.1 16:20 0.4 22:12 4.8	11 Sun	03:47 3.9 10:07 1.2 15:45 4.7 23:08 0.7	19 Mon	04:40 -0.5 10:44 6.1 17:20 -0.5 23:15 5.0	27 Tue	00:03 0.3 06:17 4.6 12:24 0.6 18:31 4.7
4 Sun	04:24 0.4 10:25 5.0 16:57 0.6 22:50 4.5	12 Mon	04:51 4.2 11:10 0.8 16:55 5.0 23:57 0.3	20 Tue	05:29 -0.2 11:42 5.9 18:14 -0.2	28 Wed	00:45 0.2 07:02 4.8 13:10 0.5 19:15 4.8
5 Mon	04:53 0.6 10:53 4.9 17:34 0.7 23:30 4.2	13 Tue	05:50 4.6 12:06 0.4 17:59 5.2	21 Wed	00:18 4.7 06:22 0.2 12:42 5.5 19:14 0.1	29 Thu	01:25 0.2 07:41 5.0 13:54 0.4 19:55 4.8
6 Tue	05:19 0.8 11:22 4.8 18:11 0.9	14 Wed	00:45 -0.1 06:43 5.1 13:00 0.0 18:54 5.5	22 Thu	01:21 4.5 07:23 0.6 13:43 5.2 20:18 0.4	30 Fri	02:04 0.1 08:17 5.1 14:36 0.3 20:32 4.8
7 Wed	00:13 4.0 05:45 1.0 11:57 4.7 18:55 1.1	15 Thu	01:32 -0.4 07:31 5.6 13:53 -0.4 19:44 5.7	23 Fri ◑	02:23 4.3 08:32 0.9 14:43 5.0 21:24 0.5	31 Sat ○	02:41 0.2 08:49 5.2 15:17 0.2 21:09 4.6
8 Thu	01:00 3.9 06:19 1.2 12:42 4.6 19:58 1.3	16 Fri ●	02:19 -0.6 08:17 6.0 14:45 -0.6 20:33 5.7	24 Sat	03:25 4.2 09:41 1.0 15:44 4.8 22:24 0.5		

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

TIMES ADJUSTED FOR DAYLIGHT SAVINGS TIME

Battery - November 2020

Times and Heights of High and Low Waters

1 02:17 0.2 08:19 5.2 Sun 14:56 0.2 20:45 4.5	9 02:20 4.0 08:42 1.0 Mon 14:17 4.7 21:35 0.4	17 03:19 -0.6 09:24 6.0 Tue 16:03 -0.7 21:59 4.7	25 04:42 4.4 10:57 0.7 Wed 16:55 4.2 23:09 0.2
2 02:51 0.3 08:46 5.1 Mon 15:34 0.3 21:21 4.3	10 03:21 4.3 09:48 0.6 Tue 15:25 4.8 22:26 0.0	18 04:09 -0.3 10:20 5.7 Wed 16:55 -0.4 23:01 4.5	26 05:29 4.6 11:43 0.5 Thu 17:43 4.3 23:49 0.2
3 03:22 0.5 09:11 5.0 Tue 16:11 0.4 22:00 4.0	11 04:21 4.8 10:46 0.2 Wed 16:31 4.9 23:15 -0.3	19 05:01 0.1 11:20 5.3 Thu 17:50 -0.1	27 06:10 4.8 12:27 0.3 Fri 18:26 4.3
4 03:51 0.7 09:40 4.9 Wed 16:49 0.6 22:43 3.9	12 05:16 5.3 11:41 -0.2 Thu 17:30 5.1	20 00:02 4.3 05:59 0.5 Fri 12:19 5.0 18:49 0.2	28 00:28 0.1 06:46 4.9 Sat 13:10 0.2 19:06 4.3
5 04:21 0.8 10:19 4.8 Thu 17:31 0.8 23:32 3.8	13 00:03 -0.6 06:07 5.7 Fri 12:35 -0.5 18:25 5.2	21 01:01 4.2 07:03 0.8 Sat 13:16 4.7 19:51 0.4	29 01:07 0.1 07:19 5.0 Sun 13:52 0.1 19:44 4.2
6 04:58 1.0 11:09 4.7 Fri 18:25 0.9	14 00:52 -0.8 06:55 6.1 Sat 13:29 -0.8 19:16 5.3	22 01:58 4.1 08:11 1.0 Sun 14:12 4.5 ☾ 20:50 0.4	30 01:45 0.2 07:50 5.0 Mon 14:33 0.0 ○ 20:21 4.1
7 00:26 3.7 05:49 1.1 Sat 12:09 4.6 19:34 0.9	15 01:41 -0.8 07:43 6.2 Sun 14:21 -0.9 ● 20:07 5.2	23 02:55 4.1 09:13 0.9 Mon 15:08 4.3 21:41 0.4	
8 01:21 3.8 07:14 1.1 Sun 13:12 4.6 ☾ 20:39 0.7	16 02:30 -0.8 08:32 6.2 Mon 15:12 -0.9 21:01 5.0	24 03:50 4.2 10:08 0.8 Tue 16:03 4.2 22:27 0.3	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes. North River is running flood 15 feet below the surface 1 hour before turning from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes before the H.W.S. East River and low water slack occurs about 20 minutes before the L.W.S. North River.

Battery - December 2020

Times and Heights of High and Low Waters

1 02:23 0.2 08:18 5.0 Tue 15:13 0.0 20:58 4.0	9 02:52 4.5 09:27 0.4 Wed 14:58 4.5 21:56 -0.2	17 03:51 -0.4 10:01 5.4 Thu 16:34 -0.6 22:40 4.3	25 04:48 4.3 11:12 0.5 Fri 17:08 3.7 23:12 0.3
2 02:59 0.3 08:46 4.9 Wed 15:52 0.1 21:37 3.9	10 03:53 4.8 10:28 0.0 Thu 16:06 4.5 22:47 -0.4	18 04:40 -0.1 10:56 5.1 Fri 17:23 -0.3 23:37 4.2	26 05:34 4.4 11:58 0.3 Sat 17:57 3.8 23:54 0.2
3 03:34 0.3 09:19 4.9 Thu 16:31 0.2 22:20 3.8	11 04:52 5.2 11:24 -0.3 Fri 17:10 4.6 23:38 -0.6	19 05:32 0.3 11:51 4.8 Sat 18:15 -0.0	27 06:15 4.6 12:43 0.1 Sun 18:41 3.9
4 04:10 0.4 10:01 4.8 Fri 17:13 0.3 23:10 3.8	12 05:47 5.6 12:19 -0.6 Sat 18:09 4.7	20 00:31 4.1 06:29 0.6 Sun 12:43 4.5 19:09 0.2	28 00:36 0.2 06:51 4.8 Mon 13:27 -0.0 19:21 3.9
5 04:50 0.5 10:53 4.7 Sat 18:01 0.3	13 00:30 -0.8 06:38 5.8 Sun 13:13 -0.8 19:03 4.8	21 01:23 4.0 07:32 0.9 Mon 13:34 4.2 ☾ 20:05 0.4	29 01:18 0.1 07:25 4.9 Tue 14:10 -0.2 20:00 4.0
6 00:04 3.8 05:42 0.7 Sun 11:52 4.6 19:00 0.4	14 01:21 -0.8 07:27 5.9 Mon 14:06 -1.0 ● 19:55 4.7	22 02:14 4.0 08:35 0.9 Tue 14:25 4.0 20:57 0.4	30 02:00 0.0 07:57 4.9 Wed 14:51 -0.3 ● 20:37 4.0
7 00:58 3.9 06:57 0.7 Mon 12:52 4.6 20:03 0.3	15 02:12 -0.7 08:16 5.9 Tue 14:56 -1.0 20:48 4.6	23 03:06 4.0 09:33 0.9 Wed 15:19 3.8 21:45 0.4	31 02:40 -0.1 08:31 5.0 Thu 15:31 -0.3 21:15 3.9
8 01:54 4.2 08:19 0.7 Tue 13:53 4.5 ☾ 21:02 0.1	16 03:02 -0.6 09:07 5.7 Wed 15:45 -0.8 21:43 4.5	24 03:58 4.1 10:24 0.7 Thu 16:14 3.7 22:29 0.4	

East River Constant HWS Batt. + 1:30 LWS Batt. + 1:20
 North River Constant HWS Batt. + 2:20 LWS Batt. + 2:40

East River slack water lasts from 4 to 8 minutes. North River about 35 minutes.
 North River is running flood 15 feet below the surface 1 hour before turning
 from ebb to flood at surface. High water slack occurs in the Narrows 15 minutes
 before the H.W.S. East River and low water slack occurs about 20 minutes
 before the L.W.S. North River.