

From: [Whiteman, Martha](#)
To: [Whiteman, Martha](#)
Subject: FW: Chelan River Temperature Monitoring Data - 2018 July Report
Date: Monday, September 17, 2018 8:49:53 AM
Attachments: [2018 Chelan River Daily Average Temperature Data July Report.pdf](#)
[2018 Chelan River Hourly Temperature Data July Report.pdf](#)

From: Hopkins, Scott

Sent: Tuesday, August 28, 2018 11:09 AM

To: 'Ashley Rawhouser' <Ashely_Rawhouser@nps.gov>; 'Bob Rose' <rosb@yakamafish-nsn.gov>; 'Breean Zimmerman' <bzim461@ecy.wa.gov>; Buehn, Scott <scott.buehn@chelanpud.org>; 'Carl Merkle' <carlmerkle@ctuir.com>; Clement, Marcie <Marcie.Clement@chelanpud.org>; 'David Bowen' <david.bowen@ecy.wa.gov>; 'Emily Johnson' <ekjohnson@fs.fed.us>; 'Graham Simon' <Graham.Simon@dfw.wa.gov>; 'Hugh Anthony' <Hugh_Anthony@nps.gov>; 'Jim Pacheco' <jpac461@ecy.wa.gov>; 'Justin Yeager' <Justin.Yeager@noaa.gov>; 'Kari Grover Wier' <kgroverwier@fs.fed.us>; 'M. Cooney' <mcooney@cityofchelan.us>; 'Mark Peterschmidt' <mape461@ecy.wa.gov>; 'Nick Elwell' <nelwell@usgs.gov>; 'Nona Snell' <nona.snell@rco.wa.gov>; Osborn, Jeff <Jeff.Osborn@chelanpud.org>; 'Paul Willard' <pwillard@fs.fed.us>; 'Phil Archibald' <ndmarkey@gmail.com>; 'Richard Uhlhorn' <richard@richarduhlhorn.com>; Smith, Michelle <michelle.smith@chelanpud.org>; Sokolowski, Rosana <Rosana.Sokolowski@chelanpud.org>; 'Steve Lewis' <Stephen_Lewis@fws.gov>; 'Thomas O'Keefe' <okeefe@amwhitewater.org>; 'Tom Ernsberger' <tom.ernsberger@parks.wa.gov>; Towey, Bill <bill.towey@chelanpud.org>; 'Travis Maitland' <travis.maitland@dfw.wa.gov>; Underwood, Alene <Alene.Underwood@chelanpud.org>; Von Reis, Charles <Charles.VonReis@chelanpud.org>; Willard, Catherine <Catherine.Willard@chelanpud.org>; 'Ana Cerro-Timpone' <avcerrotimpone@fs.fed.us>; 'Chuck Brushwood' <charles.brushwood@colvilletribes.com>; 'Mayfield, Mariah - FS' <mariahmayfield@fs.fed.us>; Whiteman, Martha <Martha.Whiteman@chelanpud.org>
Cc: Joseph Miller <jmiller@fourpeaksenv.com>; 'Pradeep Mugunthan' <pmugunthan@fourpeaksenv.com>

Subject: Chelan River Temperature Monitoring Data - 2018 July Report

PUBLIC UTILITY DISTRICT NO. 1 of CHELAN COUNTY

P.O. Box 1231, Wenatchee, WA 98807-1231 • 327 N. Wenatchee Ave., Wenatchee, WA 98801
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To: Department of Ecology
Water Quality Program
Central Regional Office

Chelan River Fishery Forum:
Washington Department of Ecology
Washington Department of Fish and Wildlife
United States Forest Service
National Park Service
United States Fish and Wildlife Service
National Marine Fisheries Service
CCT (Colville)

YN (Yakama)
CTUIR (Umatilla tribe)
Lake Chelan Sportsman Association
United States Geological Survey
Washington State Parks and Recreation Commission
Washington State Recreation and Conservation Office
City of Chelan
Manson Parks and Recreation Department
Lake Chelan Recreation Association
American Whitewater

From: Scott Hopkins, Fisheries Biologist II
Public Utility District No. 1 of Chelan County (Chelan PUD)
scott.hopkins@chelanpud.org
(509)661-4763

Re: Lake Chelan Hydroelectric Project No. 637 (Project)
Appendix D 401 Water Quality Certification Condition V.C.i)
Water Temperature Data Reports: July 2018

Dear Ecology Water Quality Program, Chelan River Fishery Forum, and Other Parties:

Water temperature monitoring data for July 2018 is provided in the attached files. This information will be posted to the Lake Chelan Implementation web page under resource documents.

<http://www.chelanpud.org/hydropower/licensing-and-compliance/lake-chelan-license-implementation/resource-documents>

Data during times of maintenance, calibration, or other miscellaneous events have been denoted with "NA" to designate these periods when data was either unavailable or inaccurate. Noteworthy events labeled with "NA" are explained below.

- 1) 7/1/18 through 7/20/18 - Tailrace at Pump Intake logger failed on 4/10/18 and no data was recorded after this date until logger was switched out.
- 2) 7/19/18 - All loggers were programmed and scheduled to be swapped out on 7/20/18 but due to operational constraints the work was performed on 7/19/18.

Please feel free to call or email any questions or comments.

Scott Hopkins
Fisheries Biologist

Chelan County PUD
509-661-4763 (office)

509-630-2708 (cell)

Scott.Hopkins@chelanpud.org

Date	Hour	Low Level Outlet Pipe -Auto- (Deg. C)	Top of Reach 1 -Logger- (Deg. C)	End of Reach 1 -Logger- (Deg. C)	End of Reach 3 -Logger- (Deg. C)	Top of R4 Habitat Channel -Logger- (Deg. C)	End of R4 Habitat Channel -Logger- (Deg. C)	Tailrace at Pump Intake -Auto- (Deg. C)	Tailrace at Pump Intake -Logger- (Deg. C)
7/1/2018	1	18.9	19.1	18.5	18.3	18.5	18.5	19.1	NA
7/1/2018	2	18.9	19.0	18.5	18.3	18.5	18.4	19.0	NA
7/1/2018	3	18.9	19.0	18.4	18.2	18.4	18.4	19.0	NA
7/1/2018	4	18.9	19.0	18.4	18.2	18.3	18.3	19.0	NA
7/1/2018	5	18.9	19.0	18.3	18.1	18.3	18.2	19.0	NA
7/1/2018	6	18.8	18.9	18.3	18.0	18.2	18.2	19.0	NA
7/1/2018	7	18.8	18.9	18.4	18.1	18.2	18.2	18.9	NA
7/1/2018	8	18.8	18.9	18.7	18.2	18.3	18.3	18.9	NA
7/1/2018	9	18.8	19.0	19.1	18.5	18.6	18.6	18.9	NA
7/1/2018	10	18.9	19.0	19.5	19.0	19.0	19.1	19.0	NA
7/1/2018	11	18.9	19.0	19.9	19.5	19.5	19.6	19.1	NA
7/1/2018	12	19.0	19.1	20.4	20.0	20.0	20.2	19.3	NA
7/1/2018	13	19.1	19.2	20.6	20.4	20.5	20.6	19.4	NA
7/1/2018	14	19.2	19.3	20.7	20.7	20.7	20.9	19.5	NA
7/1/2018	15	19.2	19.4	20.7	20.7	20.9	21.0	19.6	NA
7/1/2018	16	19.3	19.5	20.6	20.7	20.9	21.0	19.7	NA
7/1/2018	17	19.4	19.5	20.3	20.5	20.7	20.8	19.7	NA
7/1/2018	18	19.4	19.6	20.0	20.1	20.4	20.4	19.7	NA
7/1/2018	19	19.4	19.6	19.6	19.7	20.0	19.9	19.6	NA
7/1/2018	20	19.4	19.6	19.2	19.3	19.6	19.5	19.6	NA
7/1/2018	21	19.4	19.5	18.9	19.0	19.3	19.2	19.6	NA
7/1/2018	22	19.4	19.5	18.8	18.7	19.0	18.9	19.5	NA
7/1/2018	23	19.3	19.5	18.8	18.5	18.7	18.6	19.5	NA
7/1/2018	24	19.3	19.4	18.7	18.4	18.6	18.5	19.4	NA
7/2/2018	1	19.2	19.4	18.6	18.4	18.6	18.5	19.3	NA
7/2/2018	2	19.2	19.3	18.5	18.3	18.5	18.4	19.3	NA
7/2/2018	3	19.1	19.3	18.4	18.2	18.4	18.3	19.2	NA
7/2/2018	4	19.1	19.2	18.4	18.1	18.3	18.2	19.2	NA
7/2/2018	5	19.0	19.2	18.4	18.1	18.3	18.2	19.1	NA
7/2/2018	6	19.0	19.1	18.3	18.1	18.2	18.2	19.0	NA
7/2/2018	7	18.9	19.1	18.3	18.0	18.2	18.1	19.1	NA
7/2/2018	8	18.9	19.0	18.5	18.0	18.1	18.1	19.2	NA
7/2/2018	9	18.7	19.0	18.9	18.2	18.3	18.3	19.2	NA
7/2/2018	10	18.5	18.7	19.3	18.7	18.7	18.7	19.1	NA
7/2/2018	11	18.4	18.6	19.7	19.2	19.2	19.3	19.0	NA
7/2/2018	12	18.4	18.6	19.4	19.6	19.6	19.7	18.9	NA
7/2/2018	13	18.5	18.6	19.8	19.5	19.7	19.8	18.8	NA
7/2/2018	14	18.6	18.7	20.0	19.8	19.9	19.9	18.8	NA
7/2/2018	15	18.7	18.7	19.6	19.9	20.1	20.2	18.8	NA
7/2/2018	16	18.7	18.8	19.7	19.7	19.9	20.1	18.9	NA
7/2/2018	17	18.8	18.9	19.8	19.7	19.9	20.0	18.9	NA
7/2/2018	18	18.8	19.0	19.8	19.7	19.9	19.9	18.9	NA
7/2/2018	19	18.8	19.0	19.3	19.5	19.7	19.7	19.0	NA
7/2/2018	20	18.8	18.9	18.8	19.1	19.4	19.4	19.0	NA
7/2/2018	21	18.8	19.0	18.5	18.6	18.9	18.8	19.1	NA
7/2/2018	22	18.8	18.9	18.4	18.3	18.6	18.5	19.0	NA
7/2/2018	23	18.7	18.9	18.2	18.1	18.4	18.3	19.0	NA

7/2/2018	24	18.7	18.8	18.2	18.0	18.2	18.1	18.9	NA
7/3/2018	1	18.7	18.8	18.1	17.9	18.1	18.0	18.9	NA
7/3/2018	2	18.6	18.8	18.1	17.9	18.0	17.9	18.8	NA
7/3/2018	3	18.6	18.7	18.1	17.9	18.0	17.9	18.8	NA
7/3/2018	4	18.6	18.7	18.1	17.8	18.0	17.9	18.7	NA
7/3/2018	5	18.6	18.7	18.2	17.8	18.0	17.9	18.7	NA
7/3/2018	6	18.5	18.7	18.2	17.9	18.0	18.0	18.8	NA
7/3/2018	7	18.5	18.6	18.2	17.9	18.0	18.0	18.9	NA
7/3/2018	8	18.5	18.6	18.3	18.0	18.1	18.1	18.9	NA
7/3/2018	9	18.4	18.6	18.4	18.1	18.2	18.2	18.9	NA
7/3/2018	10	18.4	18.5	18.7	18.3	18.4	18.4	18.9	NA
7/3/2018	11	18.4	18.5	19.3	18.7	18.7	18.8	18.9	NA
7/3/2018	12	18.5	18.6	19.5	19.3	19.2	19.4	18.9	NA
7/3/2018	13	18.6	18.7	20.1	19.7	19.7	19.9	18.9	NA
7/3/2018	14	18.6	18.8	20.4	20.2	20.2	20.4	18.9	NA
7/3/2018	15	18.7	18.8	20.5	20.6	20.6	20.8	18.9	NA
7/3/2018	16	18.9	19.0	20.3	20.5	20.7	20.8	19.0	NA
7/3/2018	17	19.0	19.1	20.2	20.5	20.7	20.8	19.0	NA
7/3/2018	18	19.1	19.2	19.8	20.1	20.4	20.5	19.1	NA
7/3/2018	19	19.1	19.3	19.5	19.7	20.0	20.0	19.1	NA
7/3/2018	20	19.1	19.2	19.2	19.4	19.7	19.7	19.2	NA
7/3/2018	21	19.1	19.2	19.0	19.1	19.3	19.3	19.2	NA
7/3/2018	22	19.1	19.2	18.9	18.8	19.1	19.0	19.2	NA
7/3/2018	23	19.0	19.2	18.8	18.7	18.9	18.8	19.2	NA
7/3/2018	24	18.9	19.1	18.7	18.6	18.8	18.7	19.2	NA
7/4/2018	1	18.9	19.0	18.6	18.5	18.7	18.7	19.2	NA
7/4/2018	2	18.8	19.0	18.6	18.4	18.6	18.6	19.1	NA
7/4/2018	3	18.8	18.9	18.5	18.4	18.6	18.5	19.1	NA
7/4/2018	4	18.8	18.9	18.4	18.3	18.5	18.4	19.1	NA
7/4/2018	5	18.7	18.8	18.3	18.2	18.4	18.3	19.0	NA
7/4/2018	6	18.7	18.8	18.3	18.1	18.3	18.2	19.0	NA
7/4/2018	7	18.6	18.7	18.3	18.1	18.2	18.2	19.0	NA
7/4/2018	8	18.5	18.7	18.5	18.2	18.3	18.3	19.0	NA
7/4/2018	9	18.5	18.7	18.8	18.4	18.5	18.5	19.0	NA
7/4/2018	10	18.5	18.7	19.2	18.7	18.8	18.8	19.0	NA
7/4/2018	11	18.5	18.7	19.6	19.2	19.2	19.3	18.9	NA
7/4/2018	12	18.6	18.7	19.9	19.7	19.7	19.8	18.9	NA
7/4/2018	13	18.6	18.8	20.2	20.0	20.0	20.2	18.9	NA
7/4/2018	14	18.7	18.8	20.2	20.2	20.3	20.5	18.9	NA
7/4/2018	15	18.7	18.8	20.3	20.3	20.5	20.6	18.9	NA
7/4/2018	16	18.7	18.9	20.1	20.3	20.5	20.6	19.0	NA
7/4/2018	17	18.7	18.8	19.7	20.2	20.3	20.4	19.0	NA
7/4/2018	18	18.7	18.8	19.3	19.8	20.1	20.1	19.0	NA
7/4/2018	19	18.7	18.9	19.1	19.4	19.7	19.7	19.1	NA
7/4/2018	20	18.7	18.9	19.0	19.1	19.3	19.3	19.1	NA
7/4/2018	21	18.8	18.9	18.9	18.9	19.2	19.1	19.1	NA
7/4/2018	22	18.8	19.0	18.8	18.8	19.0	19.0	19.2	NA
7/4/2018	23	18.9	19.0	18.8	18.7	18.9	18.9	19.2	NA
7/4/2018	24	19.0	19.1	18.8	18.7	18.9	18.9	19.1	NA
7/5/2018	1	19.0	19.2	18.9	18.7	18.9	18.9	19.1	NA
7/5/2018	2	18.9	19.1	18.8	18.7	18.9	18.9	19.0	NA
7/5/2018	3	18.9	19.1	18.7	18.7	18.9	18.8	19.0	NA
7/5/2018	4	18.8	19.0	18.6	18.6	18.7	18.7	18.9	NA
7/5/2018	5	18.7	18.9	18.5	18.4	18.6	18.6	18.9	NA

7/5/2018	6	18.7	18.8	18.5	18.3	18.5	18.5	18.9	NA
7/5/2018	7	18.6	18.8	18.5	18.3	18.5	18.4	18.8	NA
7/5/2018	8	18.5	18.7	18.7	18.4	18.5	18.5	18.9	NA
7/5/2018	9	18.5	18.7	19.1	18.6	18.7	18.7	18.9	NA
7/5/2018	10	18.4	18.6	19.5	19.0	19.0	19.2	18.9	NA
7/5/2018	11	18.2	18.4	20.0	19.6	19.6	19.7	18.9	NA
7/5/2018	12	18.1	18.3	20.4	20.2	20.2	20.4	18.9	NA
7/5/2018	13	18.2	18.3	20.8	20.7	20.7	20.9	19.0	NA
7/5/2018	14	18.1	18.4	21.0	21.1	21.1	21.4	19.0	NA
7/5/2018	15	18.1	18.3	21.2	21.4	21.4	21.8	19.1	NA
7/5/2018	16	18.1	18.3	21.1	21.6	21.7	22.0	19.1	NA
7/5/2018	17	18.2	18.4	20.8	21.5	21.7	22.0	19.2	NA
7/5/2018	18	18.4	18.4	20.3	21.2	21.5	21.7	19.3	NA
7/5/2018	19	18.4	18.6	19.8	20.7	21.0	21.1	19.4	NA
7/5/2018	20	18.5	18.5	19.3	20.2	20.6	20.6	19.5	NA
7/5/2018	21	18.4	18.4	18.9	19.7	20.1	20.1	19.5	NA
7/5/2018	22	18.3	18.3	18.7	19.2	19.6	19.6	19.6	NA
7/5/2018	23	18.4	18.7	18.5	18.8	19.2	19.1	19.6	NA
7/5/2018	24	18.6	18.1	18.3	18.6	18.9	18.9	19.6	NA
7/6/2018	1	18.5	18.7	18.2	18.4	18.7	18.6	19.6	NA
7/6/2018	2	18.9	18.7	18.3	18.3	18.5	18.4	19.6	NA
7/6/2018	3	19.1	18.9	18.2	18.1	18.4	18.3	19.6	NA
7/6/2018	4	19.3	19.4	18.3	18.1	18.3	18.2	19.7	NA
7/6/2018	5	19.3	19.3	18.5	18.1	18.3	18.2	19.7	NA
7/6/2018	6	19.2	19.4	18.7	18.2	18.4	18.3	19.7	NA
7/6/2018	7	19.3	19.4	18.9	18.5	18.5	18.5	19.7	NA
7/6/2018	8	19.4	19.5	19.1	18.7	18.7	18.8	19.7	NA
7/6/2018	9	19.5	19.6	19.3	18.9	18.9	19.0	19.8	NA
7/6/2018	10	19.5	19.7	19.7	19.2	19.2	19.3	19.8	NA
7/6/2018	11	19.5	19.7	20.1	19.5	19.5	19.7	19.8	NA
7/6/2018	12	19.6	19.7	20.9	20.1	20.1	20.3	19.8	NA
7/6/2018	13	19.7	19.8	21.4	20.7	20.6	20.8	19.9	NA
7/6/2018	14	19.8	20.0	21.6	21.3	21.2	21.4	20.0	NA
7/6/2018	15	19.9	20.1	21.8	21.7	21.6	21.9	20.0	NA
7/6/2018	16	19.9	20.2	21.5	21.8	21.9	22.1	20.1	NA
7/6/2018	17	20.0	20.2	21.2	21.8	21.9	22.1	20.2	NA
7/6/2018	18	20.1	20.2	20.9	21.4	21.6	21.8	20.2	NA
7/6/2018	19	20.1	20.3	20.4	20.9	21.2	21.2	20.3	NA
7/6/2018	20	20.1	20.3	20.1	20.6	20.9	20.8	20.3	NA
7/6/2018	21	20.0	20.2	19.8	20.2	20.5	20.4	20.3	NA
7/6/2018	22	20.0	20.2	19.6	19.8	20.1	20.0	20.2	NA
7/6/2018	23	19.9	20.1	19.5	19.5	19.8	19.7	20.2	NA
7/6/2018	24	19.9	20.0	19.3	19.3	19.5	19.4	20.1	NA
7/7/2018	1	19.8	20.0	19.2	19.1	19.4	19.2	20.1	NA
7/7/2018	2	19.8	19.9	19.0	18.9	19.2	19.1	20.0	NA
7/7/2018	3	19.7	19.9	19.0	18.8	19.0	18.9	20.0	NA
7/7/2018	4	19.7	19.8	18.9	18.7	18.9	18.7	19.9	NA
7/7/2018	5	19.6	19.8	18.9	18.6	18.8	18.7	19.9	NA
7/7/2018	6	19.6	19.7	18.8	18.5	18.7	18.6	19.9	NA
7/7/2018	7	19.6	19.7	18.9	18.5	18.7	18.6	19.9	NA
7/7/2018	8	19.6	19.7	19.2	18.6	18.7	18.7	19.9	NA
7/7/2018	9	19.5	19.7	19.6	18.8	18.9	18.9	19.9	NA
7/7/2018	10	19.6	19.7	20.2	19.2	19.2	19.3	19.9	NA
7/7/2018	11	19.6	19.7	20.9	19.9	19.8	20.0	19.9	NA

7/7/2018	12	19.7	19.8	21.5	20.7	20.5	20.8	19.9	NA
7/7/2018	13	19.8	19.9	21.8	21.4	21.2	21.5	20.0	NA
7/7/2018	14	19.9	20.1	22.1	21.8	21.8	22.1	20.1	NA
7/7/2018	15	20.0	20.2	22.2	22.2	22.2	22.5	20.2	NA
7/7/2018	16	20.1	20.3	21.9	22.3	22.4	22.6	20.3	NA
7/7/2018	17	20.2	20.4	21.7	22.2	22.4	22.6	20.4	NA
7/7/2018	18	20.3	20.4	21.4	21.8	22.1	22.2	20.5	NA
7/7/2018	19	20.3	20.5	20.8	21.4	21.7	21.7	20.6	NA
7/7/2018	20	20.3	20.5	20.4	20.9	21.2	21.2	20.6	NA
7/7/2018	21	20.3	20.5	20.0	20.4	20.8	20.7	20.6	NA
7/7/2018	22	20.3	20.5	19.7	20.0	20.3	20.2	20.5	NA
7/7/2018	23	20.2	20.4	19.6	19.6	19.9	19.8	20.4	NA
7/7/2018	24	20.2	20.3	19.5	19.4	19.7	19.6	20.4	NA
7/8/2018	1	20.1	20.2	19.3	19.2	19.5	19.4	20.3	NA
7/8/2018	2	20.0	20.2	19.1	19.0	19.3	19.2	20.2	NA
7/8/2018	3	19.9	20.1	19.0	18.9	19.1	19.0	20.1	NA
7/8/2018	4	19.8	20.0	19.0	18.7	19.0	18.9	20.1	NA
7/8/2018	5	19.8	19.9	19.0	18.6	18.8	18.7	20.0	NA
7/8/2018	6	19.7	19.8	18.9	18.6	18.8	18.7	20.0	NA
7/8/2018	7	19.6	19.8	19.0	18.6	18.8	18.7	20.0	NA
7/8/2018	8	19.6	19.7	19.2	18.7	18.8	18.8	20.0	NA
7/8/2018	9	19.6	19.7	19.7	18.9	19.0	19.0	20.0	NA
7/8/2018	10	19.6	19.8	20.3	19.3	19.3	19.4	20.0	NA
7/8/2018	11	19.7	19.8	21.0	20.0	19.9	20.1	20.0	NA
7/8/2018	12	19.8	19.9	21.6	20.8	20.6	20.9	20.0	NA
7/8/2018	13	19.9	20.0	22.0	21.5	21.4	21.7	20.1	NA
7/8/2018	14	20.0	20.2	22.3	22.1	22.0	22.3	20.2	NA
7/8/2018	15	20.2	20.4	22.3	22.4	22.4	22.7	20.3	NA
7/8/2018	16	20.3	20.5	22.3	22.5	22.6	22.9	20.4	NA
7/8/2018	17	20.4	20.6	22.1	22.5	22.6	22.9	20.5	NA
7/8/2018	18	20.4	20.6	21.8	22.2	22.5	22.7	20.6	NA
7/8/2018	19	20.5	20.7	21.4	21.8	22.1	22.2	20.7	NA
7/8/2018	20	20.5	20.7	20.9	21.5	21.8	21.8	20.8	NA
7/8/2018	21	20.5	20.7	20.5	21.1	21.4	21.4	20.8	NA
7/8/2018	22	20.5	20.7	20.2	20.7	21.0	21.0	20.7	NA
7/8/2018	23	20.5	20.7	20.0	20.2	20.6	20.5	20.7	NA
7/8/2018	24	20.4	20.6	19.9	20.0	20.2	20.2	20.6	NA
7/9/2018	1	20.4	20.5	19.9	19.8	20.0	19.9	20.5	NA
7/9/2018	2	20.3	20.5	19.8	19.7	19.9	19.8	20.5	NA
7/9/2018	3	20.2	20.4	19.7	19.6	19.8	19.7	20.4	NA
7/9/2018	4	20.2	20.3	19.6	19.5	19.7	19.6	20.4	NA
7/9/2018	5	20.1	20.2	19.4	19.4	19.6	19.5	20.3	NA
7/9/2018	6	20.0	20.1	19.4	19.2	19.4	19.4	20.2	NA
7/9/2018	7	19.9	20.1	19.4	19.2	19.4	19.3	20.1	NA
7/9/2018	8	19.8	20.0	19.7	19.2	19.4	19.3	20.0	NA
7/9/2018	9	19.8	20.0	20.1	19.4	19.8	19.7	20.1	NA
7/9/2018	10	19.8	19.9	20.7	19.8	19.9	20.0	20.1	NA
7/9/2018	11	19.7	19.9	21.4	20.5	20.2	20.4	20.2	NA
7/9/2018	12	19.6	19.9	21.9	21.3	20.3	20.9	20.2	NA
7/9/2018	13	19.7	19.8	22.2	22.0	20.4	21.4	20.3	NA
7/9/2018	14	19.8	19.9	22.4	22.5	20.8	21.8	20.3	NA
7/9/2018	15	19.8	20.1	22.4	22.8	20.9	22.1	20.4	NA
7/9/2018	16	19.8	20.1	22.4	22.8	21.0	22.2	20.4	NA
7/9/2018	17	19.8	20.0	22.2	22.7	21.1	22.2	20.5	NA

7/9/2018	18	19.8	20.1	21.7	22.4	21.1	22.0	20.5	NA
7/9/2018	19	19.8	20.1	21.2	22.0	21.0	21.6	20.6	NA
7/9/2018	20	19.7	19.9	20.6	21.5	20.9	21.2	20.6	NA
7/9/2018	21	19.5	19.8	20.1	20.9	20.7	20.9	20.6	NA
7/9/2018	22	19.5	19.7	19.7	20.3	20.5	20.5	20.7	NA
7/9/2018	23	19.6	19.4	19.5	19.9	20.4	20.3	20.7	NA
7/9/2018	24	19.8	19.7	19.3	19.6	20.3	20.2	20.7	NA
7/10/2018	1	20.1	19.9	19.3	19.4	20.2	20.0	20.7	NA
7/10/2018	2	20.3	20.4	19.2	19.2	20.1	19.8	20.7	NA
7/10/2018	3	20.4	20.3	19.3	19.1	20.1	19.7	20.7	NA
7/10/2018	4	20.5	20.6	19.4	19.0	20.0	19.7	20.7	NA
7/10/2018	5	20.4	20.6	19.5	19.1	20.0	19.7	20.7	NA
7/10/2018	6	20.4	20.6	19.6	19.1	20.0	19.7	20.7	NA
7/10/2018	7	20.4	20.5	19.7	19.2	20.0	19.8	20.6	NA
7/10/2018	8	20.3	20.5	20.0	19.4	20.1	19.9	20.6	NA
7/10/2018	9	20.3	20.4	20.2	19.6	20.2	20.0	20.6	NA
7/10/2018	10	20.3	20.4	20.6	20.0	20.3	20.3	20.6	NA
7/10/2018	11	20.3	20.4	21.3	20.4	20.5	20.7	20.5	NA
7/10/2018	12	20.3	20.5	21.9	21.1	21.0	21.2	20.7	NA
7/10/2018	13	20.4	20.6	22.4	21.7	21.2	21.7	20.8	NA
7/10/2018	14	20.5	20.7	22.7	22.3	21.3	22.0	20.9	NA
7/10/2018	15	20.7	20.8	22.7	22.8	21.3	22.0	21.0	NA
7/10/2018	16	20.8	21.0	22.6	22.9	21.4	22.2	21.1	NA
7/10/2018	17	20.9	21.1	22.4	22.8	21.5	22.2	21.1	NA
7/10/2018	18	21.0	21.2	22.0	22.4	21.4	22.0	21.1	NA
7/10/2018	19	21.0	21.2	21.5	22.0	21.4	21.7	21.1	NA
7/10/2018	20	20.9	21.2	20.9	21.5	21.3	21.4	21.1	NA
7/10/2018	21	20.9	21.1	20.4	21.0	21.2	21.1	21.0	NA
7/10/2018	22	20.8	21.0	20.1	20.4	20.9	20.8	21.0	NA
7/10/2018	23	20.8	21.0	19.9	20.0	20.8	20.6	21.0	NA
7/10/2018	24	20.8	20.9	19.8	19.7	20.7	20.4	21.0	NA
7/11/2018	1	20.7	20.9	19.8	19.6	20.6	20.3	21.0	NA
7/11/2018	2	20.7	20.8	19.8	19.5	20.5	20.2	20.9	NA
7/11/2018	3	20.6	20.7	19.8	19.5	20.4	20.1	20.8	NA
7/11/2018	4	20.6	20.7	19.7	19.5	20.3	20.1	20.8	NA
7/11/2018	5	20.5	20.6	19.7	19.4	20.3	20.0	20.7	NA
7/11/2018	6	20.4	20.6	19.7	19.4	20.2	20.0	20.7	NA
7/11/2018	7	20.4	20.5	19.7	19.3	20.2	20.0	20.6	NA
7/11/2018	8	20.3	20.5	19.9	19.4	20.2	20.0	20.6	NA
7/11/2018	9	20.3	20.5	20.4	19.6	20.3	20.2	20.6	NA
7/11/2018	10	20.3	20.5	21.0	20.0	20.4	20.4	20.7	NA
7/11/2018	11	20.4	20.5	21.6	20.7	20.7	20.8	20.8	NA
7/11/2018	12	20.4	20.6	22.2	21.5	21.0	21.3	20.9	NA
7/11/2018	13	20.6	20.7	22.7	22.2	21.1	21.7	21.0	NA
7/11/2018	14	20.7	20.9	22.9	22.8	21.3	22.1	21.0	NA
7/11/2018	15	20.8	21.0	23.0	23.1	21.4	22.3	21.1	NA
7/11/2018	16	20.9	21.1	23.1	23.3	21.6	22.5	21.2	NA
7/11/2018	17	21.0	21.2	22.9	23.2	21.6	22.5	21.2	NA
7/11/2018	18	21.0	21.2	22.5	23.0	21.7	22.4	21.2	NA
7/11/2018	19	21.0	21.2	22.0	22.6	21.6	22.1	21.2	NA
7/11/2018	20	21.0	21.2	21.5	22.3	21.4	21.9	21.2	NA
7/11/2018	21	20.8	21.2	21.1	21.7	21.3	21.6	21.1	NA
7/11/2018	22	20.5	20.9	20.8	21.2	21.1	21.2	21.1	NA
7/11/2018	23	20.1	20.5	20.6	20.8	20.8	20.9	20.9	NA

7/11/2018	24	19.9	20.1	20.3	20.6	20.6	20.6	20.8	NA
7/12/2018	1	19.7	19.9	19.9	20.3	20.4	20.5	20.6	NA
7/12/2018	2	19.6	19.7	19.7	20.1	20.3	20.2	20.5	NA
7/12/2018	3	19.5	19.6	19.5	19.7	20.1	20.0	20.3	NA
7/12/2018	4	19.4	19.6	19.3	19.5	20.0	19.8	20.2	NA
7/12/2018	5	19.4	19.5	19.1	19.2	19.8	19.7	20.0	NA
7/12/2018	6	19.4	19.5	19.0	19.1	19.7	19.5	19.9	NA
7/12/2018	7	19.4	19.4	19.0	18.9	19.6	19.5	19.9	NA
7/12/2018	8	19.3	19.6	19.4	19.0	19.6	19.5	19.9	NA
7/12/2018	9	19.3	19.4	19.8	19.2	19.6	19.6	19.9	NA
7/12/2018	10	19.3	19.5	20.4	19.6	19.7	19.8	19.9	NA
7/12/2018	11	19.3	19.4	21.1	20.3	20.2	20.5	20.0	NA
7/12/2018	12	19.3	19.5	21.6	21.1	20.3	20.7	20.0	NA
7/12/2018	13	19.3	19.5	22.1	21.8	20.5	21.2	20.0	NA
7/12/2018	14	19.4	19.5	22.3	22.3	20.7	21.5	20.1	NA
7/12/2018	15	19.5	19.7	22.4	22.7	20.8	21.8	20.2	NA
7/12/2018	16	19.5	19.7	22.3	22.8	20.9	21.9	20.3	NA
7/12/2018	17	19.5	19.8	22.1	22.7	20.9	21.8	20.4	NA
7/12/2018	18	19.6	19.7	21.7	22.4	20.8	21.7	20.4	NA
7/12/2018	19	19.5	19.7	21.1	22.0	20.9	21.4	20.5	NA
7/12/2018	20	19.5	19.7	20.6	21.5	20.7	21.2	20.6	NA
7/12/2018	21	19.6	19.7	20.0	21.0	20.7	20.9	20.8	NA
7/12/2018	22	19.6	19.8	19.7	20.4	20.7	20.7	20.9	NA
7/12/2018	23	19.5	19.8	19.6	20.0	20.7	20.6	20.9	NA
7/12/2018	24	19.6	19.6	19.5	19.7	20.4	20.3	20.8	NA
7/13/2018	1	19.6	19.8	19.4	19.5	20.4	20.2	20.7	NA
7/13/2018	2	19.5	19.5	19.4	19.4	20.2	20.1	20.6	NA
7/13/2018	3	19.4	19.4	19.3	19.2	20.1	19.9	20.5	NA
7/13/2018	4	19.3	19.5	19.2	19.2	20.1	19.9	20.4	NA
7/13/2018	5	19.2	19.3	19.1	19.1	19.9	19.7	20.4	NA
7/13/2018	6	19.2	19.2	18.9	19.0	19.8	19.6	20.3	NA
7/13/2018	7	19.1	19.2	18.9	18.9	19.7	19.6	20.2	NA
7/13/2018	8	19.1	19.3	19.2	18.9	19.7	19.6	20.2	NA
7/13/2018	9	19.1	19.2	19.6	19.0	19.8	19.7	20.1	NA
7/13/2018	10	19.2	19.2	20.2	19.4	19.6	19.7	20.1	NA
7/13/2018	11	19.2	19.4	21.0	20.1	20.2	20.3	20.1	NA
7/13/2018	12	19.1	19.6	21.6	21.0	20.4	20.8	20.2	NA
7/13/2018	13	19.1	19.5	22.0	21.7	20.7	21.2	20.2	NA
7/13/2018	14	19.1	19.3	22.2	22.3	20.7	21.6	20.2	NA
7/13/2018	15	18.9	19.4	22.2	22.6	20.9	21.8	20.5	NA
7/13/2018	16	18.9	19.1	22.1	22.7	20.8	21.8	20.6	NA
7/13/2018	17	19.0	19.1	21.6	22.5	21.0	21.8	20.9	NA
7/13/2018	18	19.3	19.1	21.1	22.1	21.2	21.7	21.3	NA
7/13/2018	19	19.6	19.4	20.6	21.4	21.4	21.6	21.4	NA
7/13/2018	20	20.5	20.1	20.2	20.9	21.3	21.2	21.4	NA
7/13/2018	21	20.8	20.6	19.9	20.5	21.2	21.1	21.5	NA
7/13/2018	22	21.1	20.8	20.1	20.0	21.1	20.9	21.5	NA
7/13/2018	23	21.1	21.3	20.2	19.9	21.0	20.7	21.5	NA
7/13/2018	24	21.1	21.2	20.3	20.0	20.9	20.7	21.5	NA
7/14/2018	1	21.1	21.2	20.3	20.0	20.9	20.7	21.4	NA
7/14/2018	2	21.1	21.2	20.2	20.0	20.8	20.7	21.3	NA
7/14/2018	3	21.0	21.2	20.3	20.0	20.8	20.6	21.2	NA
7/14/2018	4	20.9	21.1	20.3	20.0	20.8	20.6	21.2	NA
7/14/2018	5	20.8	21.0	20.2	20.0	20.7	20.5	21.1	NA

7/14/2018	6	20.8	20.9	20.2	20.0	20.7	20.5	21.1	NA
7/14/2018	7	20.8	20.9	20.2	20.0	20.7	20.5	21.1	NA
7/14/2018	8	20.8	20.9	20.3	20.0	20.7	20.6	21.1	NA
7/14/2018	9	20.8	20.9	20.7	20.0	20.7	20.7	21.2	NA
7/14/2018	10	20.8	21.0	21.2	20.3	20.8	20.8	21.2	NA
7/14/2018	11	20.9	21.0	21.8	20.9	21.1	21.1	21.2	NA
7/14/2018	12	20.9	21.1	22.4	21.6	21.3	21.6	21.3	NA
7/14/2018	13	21.0	21.2	22.8	22.3	21.5	22.0	21.3	NA
7/14/2018	14	21.0	21.2	23.1	22.8	21.6	22.3	21.3	NA
7/14/2018	15	21.0	21.2	23.2	23.2	21.7	22.5	21.2	NA
7/14/2018	16	21.0	21.2	23.1	23.3	21.7	22.6	21.1	NA
7/14/2018	17	20.9	21.2	22.8	23.2	21.6	22.5	21.1	NA
7/14/2018	18	20.9	21.1	22.4	22.9	21.5	22.3	21.0	NA
7/14/2018	19	20.7	21.1	21.8	22.4	21.4	21.9	21.0	NA
7/14/2018	20	19.7	20.7	21.2	22.0	21.0	21.5	20.8	NA
7/14/2018	21	18.9	19.4	20.7	21.5	20.4	20.9	20.3	NA
7/14/2018	22	18.2	18.5	20.0	21.0	19.9	20.4	19.8	NA
7/14/2018	23	18.0	18.2	19.2	20.4	19.7	20.1	19.5	NA
7/14/2018	24	18.6	18.1	18.5	19.7	19.7	19.8	19.6	NA
7/15/2018	1	19.0	18.5	18.2	18.9	19.7	19.6	19.7	NA
7/15/2018	2	19.5	19.3	18.2	18.3	19.5	19.3	19.9	NA
7/15/2018	3	19.7	19.7	18.4	18.1	19.5	19.2	20.0	NA
7/15/2018	4	19.7	19.7	18.7	18.1	19.5	19.2	20.1	NA
7/15/2018	5	19.8	19.7	18.8	18.2	19.6	19.2	20.2	NA
7/15/2018	6	19.9	19.9	18.8	18.4	19.7	19.3	20.4	NA
7/15/2018	7	20.0	19.9	18.9	18.5	19.7	19.4	20.5	NA
7/15/2018	8	20.2	20.2	19.4	18.6	19.8	19.6	20.5	NA
7/15/2018	9	20.2	20.3	19.9	18.9	20.0	19.8	20.6	NA
7/15/2018	10	20.1	20.4	20.7	19.4	20.2	20.2	20.6	NA
7/15/2018	11	20.1	20.3	21.6	20.3	20.6	20.7	20.7	NA
7/15/2018	12	20.1	20.3	22.1	21.2	20.9	21.2	20.8	NA
7/15/2018	13	20.2	20.3	22.5	22.1	21.2	21.7	20.9	NA
7/15/2018	14	20.2	20.4	22.8	22.7	21.4	22.1	21.0	NA
7/15/2018	15	20.2	20.5	22.9	23.0	21.5	22.3	21.1	NA
7/15/2018	16	20.4	20.5	22.8	23.2	21.6	22.4	21.2	NA
7/15/2018	17	20.4	20.6	22.6	23.1	21.7	22.5	21.4	NA
7/15/2018	18	20.5	20.5	22.2	22.8	21.7	22.3	21.5	NA
7/15/2018	19	20.5	20.8	21.7	22.4	21.7	22.1	21.5	NA
7/15/2018	20	20.6	20.8	21.2	22.0	21.6	21.8	21.5	NA
7/15/2018	21	20.8	20.7	20.7	21.5	21.5	21.6	21.5	NA
7/15/2018	22	20.7	21.0	20.5	21.0	21.4	21.3	21.4	NA
7/15/2018	23	20.8	20.8	20.4	20.6	21.2	21.1	21.4	NA
7/15/2018	24	20.7	21.0	20.4	20.4	21.1	21.0	21.4	NA
7/16/2018	1	20.7	20.7	20.3	20.2	21.0	20.8	21.4	NA
7/16/2018	2	20.6	20.7	20.2	20.2	21.0	20.8	21.3	NA
7/16/2018	3	20.7	20.7	20.2	20.1	20.9	20.7	21.3	NA
7/16/2018	4	20.6	20.8	20.1	20.0	20.9	20.7	21.2	NA
7/16/2018	5	20.5	20.6	20.0	19.9	20.7	20.6	21.2	NA
7/16/2018	6	20.5	20.6	19.9	19.8	20.7	20.4	21.1	NA
7/16/2018	7	20.4	20.5	19.9	19.8	20.6	20.4	21.1	NA
7/16/2018	8	20.4	20.5	20.2	19.8	20.6	20.4	21.0	NA
7/16/2018	9	20.3	20.5	20.6	20.0	20.6	20.6	21.0	NA
7/16/2018	10	20.3	20.5	21.2	20.4	20.5	20.6	21.1	NA
7/16/2018	11	20.3	20.5	21.9	21.1	21.1	21.2	21.2	NA

7/16/2018	12	20.3	20.4	22.4	21.8	21.3	21.7	21.4	NA
7/16/2018	13	20.2	20.5	22.9	22.4	21.6	22.1	21.5	NA
7/16/2018	14	20.2	20.5	23.3	23.0	21.8	22.5	21.7	NA
7/16/2018	15	20.2	20.5	23.5	23.5	22.2	22.8	21.9	NA
7/16/2018	16	20.2	20.5	23.5	23.7	22.3	23.0	22.1	NA
7/16/2018	17	20.2	20.4	23.4	23.8	22.3	22.9	22.4	NA
7/16/2018	18	20.1	20.4	23.2	23.8	22.7	23.1	22.5	NA
7/16/2018	19	20.1	20.3	22.6	23.5	22.6	23.0	22.6	NA
7/16/2018	20	19.9	20.3	21.9	23.2	22.5	22.8	22.6	NA
7/16/2018	21	19.6	20.0	21.2	22.8	22.6	22.7	22.6	NA
7/16/2018	22	19.3	19.6	20.7	22.3	22.5	22.6	22.6	NA
7/16/2018	23	19.1	19.2	20.2	21.7	22.3	22.3	22.5	NA
7/16/2018	24	18.9	19.1	19.8	21.1	22.1	22.0	22.4	NA
7/17/2018	1	18.8	18.9	19.5	20.6	21.9	21.7	22.3	NA
7/17/2018	2	18.7	18.8	19.2	20.2	21.8	21.5	22.2	NA
7/17/2018	3	18.6	18.7	19.0	19.9	21.6	21.3	22.0	NA
7/17/2018	4	18.6	18.7	18.8	19.5	21.3	21.1	21.9	NA
7/17/2018	5	18.6	18.6	18.7	19.2	21.2	20.9	21.8	NA
7/17/2018	6	18.5	18.6	18.5	19.0	21.0	20.7	21.6	NA
7/17/2018	7	18.5	18.5	18.5	18.8	20.9	20.6	21.5	NA
7/17/2018	8	18.5	18.6	18.8	18.8	20.8	20.6	21.4	NA
7/17/2018	9	18.5	18.7	19.3	18.8	20.8	20.7	21.4	NA
7/17/2018	10	18.5	18.7	20.0	19.0	19.5	20.9	21.4	NA
7/17/2018	11	18.6	18.8	20.8	19.4	20.8	21.0	21.5	NA
7/17/2018	12	18.6	18.9	21.8	20.3	21.2	21.3	21.6	NA
7/17/2018	13	18.7	19.0	22.8	21.2	21.4	21.7	21.7	NA
7/17/2018	14	18.9	19.1	23.3	22.0	21.6	22.0	21.9	NA
7/17/2018	15	19.0	19.3	23.6	22.7	21.8	22.3	22.0	NA
7/17/2018	16	19.1	19.4	23.6	23.4	22.2	22.7	22.1	NA
7/17/2018	17	19.1	19.4	23.4	23.8	22.3	22.8	22.3	NA
7/17/2018	18	19.1	19.4	23.0	23.9	22.3	22.8	22.4	NA
7/17/2018	19	19.1	19.4	22.3	23.6	22.5	22.8	22.6	NA
7/17/2018	20	19.2	19.4	21.5	23.2	22.5	22.7	22.8	NA
7/17/2018	21	19.2	19.4	20.7	22.7	22.5	22.6	22.7	NA
7/17/2018	22	19.2	19.4	20.1	22.1	22.3	22.3	22.6	NA
7/17/2018	23	19.2	19.4	19.7	21.5	22.2	22.1	22.5	NA
7/17/2018	24	19.3	19.4	19.4	20.9	22.0	21.9	22.3	NA
7/18/2018	1	19.4	19.5	19.2	20.3	21.8	21.6	22.2	NA
7/18/2018	2	19.5	19.5	18.9	19.9	21.6	21.3	22.1	NA
7/18/2018	3	19.6	19.6	18.8	19.5	21.4	21.1	22.0	NA
7/18/2018	4	19.6	19.7	18.7	19.2	21.2	20.9	21.8	NA
7/18/2018	5	19.7	19.7	18.7	19.0	20.9	20.7	21.7	NA
7/18/2018	6	19.7	19.8	18.6	18.8	20.7	20.4	21.5	NA
7/18/2018	7	19.8	19.9	18.7	18.6	20.6	20.3	21.4	NA
7/18/2018	8	20.0	20.1	19.1	18.7	20.6	20.4	21.2	NA
7/18/2018	9	20.3	20.4	19.7	18.8	20.5	20.5	21.1	NA
7/18/2018	10	20.8	20.8	20.4	19.0	19.5	21.2	21.2	NA
7/18/2018	11	21.1	21.3	21.4	19.5	20.0	21.4	21.4	NA
7/18/2018	12	21.4	21.8	22.5	20.3	21.0	21.2	21.4	NA
7/18/2018	13	21.8	22.1	23.5	21.2	21.2	21.6	21.3	NA
7/18/2018	14	22.0	22.5	24.3	22.2	21.3	21.8	21.2	NA
7/18/2018	15	22.2	22.8	24.8	23.1	21.9	22.4	21.8	NA
7/18/2018	16	22.6	22.9	25.0	23.8	22.2	22.8	22.4	NA
7/18/2018	17	22.7	23.1	24.8	24.2	22.4	23.0	22.5	NA

7/18/2018	18	22.8	23.2	24.4	24.4	22.6	23.2	22.6	NA
7/18/2018	19	22.9	23.3	23.8	24.3	22.6	23.0	22.7	NA
7/18/2018	20	23.1	23.4	23.1	23.9	22.7	22.9	22.7	NA
7/18/2018	21	23.1	23.4	22.4	23.5	22.6	22.7	22.6	NA
7/18/2018	22	23.2	23.4	21.9	23.1	22.5	22.6	22.5	NA
7/18/2018	23	23.2	23.4	21.5	22.5	22.4	22.4	22.4	NA
7/18/2018	24	23.2	23.4	21.4	22.0	22.3	22.2	22.4	NA
7/19/2018	1	23.2	23.4	21.2	21.5	22.1	21.9	22.3	NA
7/19/2018	2	23.2	23.4	21.1	21.2	21.9	21.7	22.2	NA
7/19/2018	3	23.3	23.4	21.0	21.0	21.8	21.6	22.1	NA
7/19/2018	4	23.3	23.5	20.8	20.8	21.7	21.4	22.0	NA
7/19/2018	5	23.4	23.5	20.6	20.6	21.5	21.2	21.8	NA
7/19/2018	6	23.4	23.5	20.5	20.4	21.3	21.1	21.6	NA
7/19/2018	7	23.5	23.5	20.5	20.2	21.2	20.9	21.5	NA
7/19/2018	8	23.5	23.6	20.9	20.2	21.1	21.0	21.3	NA
7/19/2018	9	23.6	23.7	21.5	20.3	21.1	21.1	21.1	NA
7/19/2018	10	23.6	23.8	NA	20.5	20.8	22.1	21.2	NA
7/19/2018	11	23.6	23.9	NA	20.9	21.3	21.5	21.4	NA
7/19/2018	12	23.5	NA	NA	NA	21.5	21.7	21.5	NA
7/19/2018	13	23.5	NA	NA	NA	NA	22.3	22.0	NA
7/19/2018	14	23.5	NA	NA	NA	NA	NA	22.2	NA
7/19/2018	15	23.5	NA	NA	NA	NA	NA	22.4	NA
7/19/2018	16	23.5	NA	NA	NA	NA	NA	22.7	NA
7/19/2018	17	23.5	NA	NA	NA	NA	NA	23.0	NA
7/19/2018	18	23.5	NA	NA	NA	NA	NA	23.3	NA
7/19/2018	19	23.5	NA	NA	NA	NA	NA	23.4	NA
7/19/2018	20	23.5	NA	NA	NA	NA	NA	23.3	NA
7/19/2018	21	23.5	NA	NA	NA	NA	NA	23.1	NA
7/19/2018	22	23.6	NA	NA	NA	NA	NA	23.0	NA
7/19/2018	23	23.6	NA	NA	NA	NA	NA	22.8	NA
7/19/2018	24	23.6	NA	NA	NA	NA	NA	22.7	NA
7/20/2018	1	23.6	NA	NA	NA	NA	NA	22.5	NA
7/20/2018	2	23.7	NA	NA	NA	NA	NA	22.4	NA
7/20/2018	3	23.7	NA	NA	NA	NA	NA	22.2	NA
7/20/2018	4	23.7	NA	NA	NA	NA	NA	22.0	NA
7/20/2018	5	23.6	NA	NA	NA	NA	NA	21.8	NA
7/20/2018	6	23.6	NA	NA	NA	NA	NA	21.6	NA
7/20/2018	7	23.5	23.7	NA	NA	NA	NA	21.4	NA
7/20/2018	8	23.5	23.7	NA	NA	NA	NA	21.2	NA
7/20/2018	9	23.5	23.7	NA	NA	NA	NA	21.0	NA
7/20/2018	10	23.5	23.8	NA	NA	NA	NA	21.0	NA
7/20/2018	11	23.5	23.8	NA	NA	NA	NA	21.0	NA
7/20/2018	12	23.5	23.8	24.2	NA	NA	NA	21.1	NA
7/20/2018	13	23.5	23.7	24.5	24.4	NA	NA	21.3	NA
7/20/2018	14	23.4	23.7	24.3	24.5	24.4	NA	21.8	NA
7/20/2018	15	23.4	23.7	24.2	24.3	24.3	NA	22.3	NA
7/20/2018	16	23.3	23.7	24.1	24.2	24.2	NA	23.5	23.8
7/20/2018	17	23.3	23.6	23.9	24.0	24.0	23.9	23.8	23.5
7/20/2018	18	23.2	23.6	23.7	23.8	23.8	23.7	23.6	23.5
7/20/2018	19	23.3	23.6	23.5	23.6	23.6	23.5	23.5	23.2
7/20/2018	20	23.4	23.5	23.3	23.4	23.4	23.3	23.3	23.0
7/20/2018	21	23.3	23.5	23.3	23.3	23.3	23.2	23.2	22.9
7/20/2018	22	23.3	23.5	23.2	23.2	23.2	23.1	23.0	22.7
7/20/2018	23	23.3	23.4	23.2	23.2	23.2	23.1	22.9	22.6

7/20/2018	24	23.2	23.3	23.1	23.1	23.1	23.0	22.8	22.5
7/21/2018	1	23.1	23.2	23.0	23.0	23.0	22.9	22.7	22.4
7/21/2018	2	23.1	23.2	22.9	22.9	22.9	22.8	22.6	22.4
7/21/2018	3	23.0	23.1	22.8	22.8	22.8	22.7	22.5	22.4
7/21/2018	4	22.9	23.0	22.7	22.8	22.8	22.7	22.5	22.3
7/21/2018	5	22.9	23.0	22.7	22.7	22.7	22.6	22.4	22.2
7/21/2018	6	22.8	22.9	22.6	22.6	22.6	22.5	22.4	22.2
7/21/2018	7	22.7	22.8	22.6	22.6	22.6	22.5	22.3	22.0
7/21/2018	8	22.7	22.8	22.6	22.6	22.6	22.5	22.3	22.0
7/21/2018	9	22.6	22.7	22.7	22.7	22.7	22.6	22.3	22.0
7/21/2018	10	22.5	22.7	22.9	22.9	22.8	22.8	22.5	22.2
7/21/2018	11	22.5	22.7	23.0	23.0	22.9	22.9	22.6	22.5
7/21/2018	12	22.5	22.8	23.1	23.2	23.1	23.1	22.7	23.0
7/21/2018	13	22.6	22.8	23.2	23.3	23.2	23.2	22.8	23.3
7/21/2018	14	22.6	22.9	23.2	23.3	23.3	23.3	22.9	23.9
7/21/2018	15	22.7	22.9	23.3	23.4	23.3	23.3	23.1	24.0
7/21/2018	16	22.7	22.9	23.3	23.4	23.3	23.4	23.2	24.1
7/21/2018	17	22.7	22.9	23.2	23.3	23.3	23.3	23.3	24.1
7/21/2018	18	22.6	22.8	23.1	23.2	23.2	23.2	23.3	24.0
7/21/2018	19	22.3	22.8	23.0	23.1	23.1	23.1	23.4	23.6
7/21/2018	20	21.8	22.3	22.8	22.9	22.9	22.9	23.3	23.1
7/21/2018	21	21.4	22.2	22.6	22.7	22.8	22.8	23.2	23.0
7/21/2018	22	21.2	22.1	22.4	22.5	22.6	22.6	23.1	22.9
7/21/2018	23	21.2	22.2	22.3	22.4	22.4	22.4	23.0	22.7
7/21/2018	24	21.2	22.1	22.5	22.4	22.4	22.4	22.8	22.5
7/22/2018	1	21.0	21.8	22.3	22.4	22.4	22.4	22.7	22.3
7/22/2018	2	20.6	21.4	22.1	22.3	22.3	22.3	22.6	22.3
7/22/2018	3	20.2	21.2	21.8	22.0	22.0	22.0	22.4	22.2
7/22/2018	4	20.0	21.1	21.6	21.7	21.7	21.7	22.3	22.0
7/22/2018	5	19.8	21.0	21.5	21.6	21.6	21.6	22.2	21.7
7/22/2018	6	19.8	20.8	21.3	21.4	21.5	21.5	22.1	21.6
7/22/2018	7	19.7	20.7	21.3	21.3	21.3	21.3	22.0	21.6
7/22/2018	8	19.6	20.7	21.3	21.3	21.3	21.3	21.9	21.6
7/22/2018	9	19.5	20.9	21.5	21.4	21.4	21.4	21.7	21.6
7/22/2018	10	19.6	21.0	21.9	21.7	21.6	21.7	21.6	21.6
7/22/2018	11	19.8	21.2	22.1	22.2	22.0	22.0	21.6	21.7
7/22/2018	12	20.1	21.4	22.3	22.4	22.3	22.3	21.8	22.2
7/22/2018	13	20.6	21.8	22.6	22.7	22.6	22.5	22.0	22.6
7/22/2018	14	20.8	21.9	22.8	22.8	22.7	22.7	22.2	22.9
7/22/2018	15	20.9	21.9	22.8	22.9	22.9	22.9	22.4	23.1
7/22/2018	16	20.9	21.9	22.8	23.0	22.9	23.0	22.6	23.2
7/22/2018	17	20.9	22.0	22.7	22.8	22.8	22.9	22.8	23.4
7/22/2018	18	20.7	21.8	22.7	22.7	22.7	22.7	23.0	23.4
7/22/2018	19	20.7	21.9	22.5	22.6	22.6	22.7	23.0	23.2
7/22/2018	20	20.8	21.9	22.5	22.5	22.5	22.5	22.9	23.0
7/22/2018	21	20.7	21.8	22.4	22.5	22.5	22.5	22.8	22.8
7/22/2018	22	20.6	21.6	22.2	22.3	22.3	22.4	22.7	22.7
7/22/2018	23	20.4	21.5	22.1	22.2	22.2	22.2	22.6	22.5
7/22/2018	24	20.3	21.5	22.0	22.1	22.1	22.1	22.5	22.5
7/23/2018	1	20.3	21.4	22.0	22.0	22.0	22.0	22.4	22.4
7/23/2018	2	20.2	21.3	21.9	22.0	22.0	22.0	22.3	22.2
7/23/2018	3	20.2	21.3	21.8	21.9	21.9	21.9	22.2	22.1
7/23/2018	4	20.2	21.3	21.8	21.8	21.8	21.8	22.1	22.0
7/23/2018	5	20.1	21.3	21.7	21.8	21.8	21.7	22.0	21.9

7/23/2018	6	20.1	21.2	21.7	21.7	21.7	21.7	21.8	21.8
7/23/2018	7	20.1	21.2	21.7	21.8	21.8	21.7	21.7	21.7
7/23/2018	8	20.0	21.2	21.9	21.9	21.8	21.8	21.8	21.7
7/23/2018	9	19.9	21.2	21.9	21.9	21.9	21.9	21.9	21.7
7/23/2018	10	19.8	21.1	22.1	22.1	22.1	22.1	22.0	21.9
7/23/2018	11	19.7	21.0	22.2	22.3	22.2	22.3	22.2	22.2
7/23/2018	12	19.6	21.1	22.2	22.3	22.3	22.3	22.3	22.4
7/23/2018	13	19.6	21.0	22.2	22.3	22.3	22.4	22.4	22.7
7/23/2018	14	19.6	21.0	22.3	22.4	22.3	22.4	22.5	23.0
7/23/2018	15	19.6	21.2	22.3	22.4	22.4	22.5	22.6	23.0
7/23/2018	16	19.6	21.2	22.3	22.4	22.4	22.5	22.7	23.0
7/23/2018	17	19.6	21.2	22.3	22.4	22.4	22.5	22.7	23.1
7/23/2018	18	19.5	21.1	22.2	22.3	22.3	22.4	22.7	23.1
7/23/2018	19	19.5	21.2	22.0	22.2	22.2	22.3	22.6	22.9
7/23/2018	20	19.5	21.1	21.9	22.1	22.1	22.1	22.5	22.8
7/23/2018	21	19.5	21.1	21.8	21.9	21.9	22.0	22.4	22.7
7/23/2018	22	19.4	21.1	21.8	21.9	21.9	21.9	22.3	22.5
7/23/2018	23	19.4	21.1	21.9	21.9	21.9	21.9	22.3	22.5
7/23/2018	24	19.4	21.1	21.9	22.0	22.0	22.0	22.2	22.4
7/24/2018	1	19.5	21.3	21.9	22.0	21.9	21.9	22.2	22.3
7/24/2018	2	19.7	21.3	22.0	22.0	22.0	21.9	22.1	22.1
7/24/2018	3	19.7	21.2	21.9	22.0	22.0	22.0	22.1	22.0
7/24/2018	4	19.6	21.2	21.9	21.9	21.9	21.9	22.0	21.9
7/24/2018	5	19.6	21.1	21.8	21.9	21.9	21.9	21.9	21.8
7/24/2018	6	19.6	21.1	21.8	21.9	21.8	21.8	21.9	21.7
7/24/2018	7	19.5	21.0	21.7	21.8	21.8	21.8	21.8	21.7
7/24/2018	8	19.4	21.0	21.9	21.9	21.8	21.8	21.8	21.7
7/24/2018	9	19.4	20.9	22.0	22.0	21.9	22.0	21.7	21.7
7/24/2018	10	19.4	21.0	22.1	22.2	22.1	22.2	21.9	22.0
7/24/2018	11	19.4	21.0	22.2	22.3	22.2	22.3	22.1	22.4
7/24/2018	12	19.5	21.2	22.3	22.4	22.3	22.5	22.4	22.7
7/24/2018	13	19.6	21.2	22.4	22.6	22.5	22.6	22.4	22.7
7/24/2018	14	19.6	21.2	22.6	22.7	22.6	22.8	22.5	23.5
7/24/2018	15	19.6	21.3	22.5	22.7	22.7	22.8	22.6	23.7
7/24/2018	16	19.7	21.2	22.5	22.7	22.7	22.8	22.6	23.7
7/24/2018	17	19.6	21.1	22.3	22.4	22.5	22.6	22.6	23.4
7/24/2018	18	19.5	21.0	22.1	22.3	22.3	22.4	22.5	23.4
7/24/2018	19	19.5	21.0	21.9	22.0	22.1	22.1	22.5	23.3
7/24/2018	20	19.4	20.8	21.6	21.8	21.9	21.9	22.5	23.2
7/24/2018	21	19.4	20.8	21.5	21.6	21.7	21.7	22.4	22.9
7/24/2018	22	19.3	20.7	21.5	21.6	21.6	21.6	22.2	22.8
7/24/2018	23	19.3	20.7	21.4	21.5	21.5	21.5	22.2	22.7
7/24/2018	24	19.2	20.5	21.2	21.4	21.4	21.4	22.3	22.6
7/25/2018	1	19.2	20.4	21.1	21.2	21.2	21.3	22.2	22.4
7/25/2018	2	19.1	20.4	21.0	21.1	21.1	21.1	22.1	22.3
7/25/2018	3	19.0	20.2	20.8	21.0	21.0	21.0	22.0	22.1
7/25/2018	4	18.9	20.3	20.7	20.8	20.8	20.8	22.0	21.9
7/25/2018	5	18.9	20.4	20.8	20.8	20.8	20.8	21.9	21.8
7/25/2018	6	18.9	20.4	20.9	21.0	20.9	20.9	21.8	21.7
7/25/2018	7	18.9	20.4	21.1	21.1	21.0	21.0	21.7	21.8
7/25/2018	8	18.9	20.6	21.3	21.3	21.2	21.2	21.6	21.7
7/25/2018	9	18.9	20.5	21.5	21.5	21.4	21.4	21.5	21.7
7/25/2018	10	19.0	20.7	21.7	21.7	21.6	21.7	21.6	21.9
7/25/2018	11	19.1	20.8	21.9	22.0	21.9	22.0	21.8	21.8

7/25/2018	12	19.2	20.8	22.0	22.2	22.1	22.2	22.0	22.5
7/25/2018	13	19.2	20.9	22.1	22.3	22.2	22.3	22.1	22.3
7/25/2018	14	19.3	21.0	22.3	22.4	22.3	22.4	22.2	22.4
7/25/2018	15	19.3	21.1	22.4	22.5	22.5	22.6	22.3	22.6
7/25/2018	16	19.3	21.0	22.4	22.5	22.5	22.6	22.4	23.7
7/25/2018	17	19.2	20.9	22.2	22.3	22.4	22.5	22.5	23.8
7/25/2018	18	19.2	20.8	21.9	22.1	22.1	22.2	22.5	23.5
7/25/2018	19	19.2	20.7	21.7	21.9	21.9	21.9	22.5	23.1
7/25/2018	20	19.1	20.6	21.5	21.7	21.7	21.7	22.5	22.9
7/25/2018	21	19.1	20.5	21.3	21.5	21.5	21.5	22.4	22.8
7/25/2018	22	19.0	20.5	21.2	21.4	21.4	21.4	22.3	22.4
7/25/2018	23	19.0	20.5	21.2	21.2	21.3	21.2	22.2	22.4
7/25/2018	24	18.9	20.4	21.1	21.2	21.2	21.2	22.1	22.3
7/26/2018	1	18.9	20.2	21.0	21.2	21.2	21.2	22.0	21.9
7/26/2018	2	18.9	20.2	20.8	21.0	21.0	21.0	21.9	21.9
7/26/2018	3	18.8	20.2	20.7	20.8	20.8	20.8	21.9	21.8
7/26/2018	4	18.8	20.1	20.7	20.7	20.7	20.7	21.8	21.8
7/26/2018	5	18.7	20.1	20.7	20.7	20.7	20.7	21.8	21.7
7/26/2018	6	18.6	20.0	20.6	20.7	20.7	20.7	21.7	21.6
7/26/2018	7	18.6	20.1	20.6	20.7	20.7	20.7	21.7	21.6
7/26/2018	8	18.6	20.1	20.8	20.8	20.7	20.7	21.6	21.6
7/26/2018	9	18.6	20.2	21.1	21.1	21.0	21.0	21.6	21.5
7/26/2018	10	18.7	20.4	21.5	21.5	21.3	21.4	21.5	21.6
7/26/2018	11	18.8	20.5	21.7	21.7	21.6	21.7	21.6	21.7
7/26/2018	12	18.8	20.5	21.7	21.9	21.8	22.0	21.7	21.8
7/26/2018	13	19.0	20.8	22.0	22.0	21.9	22.0	21.8	21.9
7/26/2018	14	19.1	21.1	22.2	22.3	22.2	22.3	21.9	22.1
7/26/2018	15	19.3	21.2	22.4	22.5	22.4	22.5	21.9	22.2
7/26/2018	16	19.4	21.2	22.5	22.6	22.5	22.6	22.0	22.4
7/26/2018	17	19.4	21.2	22.3	22.5	22.5	22.6	22.1	22.7
7/26/2018	18	19.4	21.1	22.1	22.3	22.3	22.4	22.2	22.8
7/26/2018	19	19.4	21.1	22.0	22.1	22.1	22.1	22.2	22.6
7/26/2018	20	19.4	21.0	21.7	21.9	21.9	22.0	22.1	22.2
7/26/2018	21	19.4	20.8	21.7	21.8	21.8	21.8	22.0	22.0
7/26/2018	22	19.3	20.8	21.5	21.6	21.7	21.7	22.0	21.9
7/26/2018	23	19.3	20.6	21.4	21.6	21.6	21.5	21.9	21.9
7/26/2018	24	19.2	20.4	21.2	21.3	21.4	21.4	21.9	21.8
7/27/2018	1	19.2	20.4	21.0	21.2	21.2	21.2	21.8	21.8
7/27/2018	2	19.1	20.5	20.9	21.0	21.0	21.0	21.8	21.8
7/27/2018	3	19.0	20.3	20.9	21.1	21.0	21.0	21.7	21.8
7/27/2018	4	18.9	20.5	20.9	21.0	21.0	21.0	21.7	21.7
7/27/2018	5	18.9	20.7	21.2	21.1	21.0	21.0	21.7	21.7
7/27/2018	6	19.0	20.8	21.4	21.4	21.3	21.2	21.7	21.6
7/27/2018	7	19.1	20.9	21.7	21.7	21.6	21.5	21.7	21.6
7/27/2018	8	19.4	21.4	22.0	21.9	21.8	21.8	21.7	21.5
7/27/2018	9	19.7	21.7	22.4	22.4	22.2	22.2	21.7	21.6
7/27/2018	10	20.4	22.2	22.7	22.7	22.6	22.6	21.7	21.7
7/27/2018	11	21.0	22.5	23.2	23.1	22.9	23.0	21.7	21.8
7/27/2018	12	20.9	22.2	23.4	23.4	23.3	23.4	21.8	22.1
7/27/2018	13	20.3	21.8	23.2	23.4	23.3	23.5	21.9	22.1
7/27/2018	14	20.1	21.7	23.2	23.3	23.2	23.3	22.0	22.1
7/27/2018	15	20.0	21.7	22.9	23.2	23.2	23.3	22.0	22.1
7/27/2018	16	20.2	22.0	23.0	23.0	23.0	23.0	22.1	22.2
7/27/2018	17	20.3	22.1	23.1	23.1	23.1	23.1	22.1	22.3

7/27/2018	18	20.5	22.2	22.9	23.0	23.0	23.1	22.1	22.3
7/27/2018	19	20.6	22.3	23.0	23.0	23.0	22.9	22.2	22.2
7/27/2018	20	20.7	22.5	23.1	23.2	23.1	23.1	22.2	22.3
7/27/2018	21	21.1	22.8	23.3	23.3	23.2	23.2	22.2	22.4
7/27/2018	22	21.6	23.2	23.5	23.5	23.5	23.4	22.3	22.4
7/27/2018	23	21.8	23.1	23.6	23.6	23.6	23.6	22.3	22.4
7/27/2018	24	22.1	23.4	23.6	23.7	23.6	23.6	22.3	22.4
7/28/2018	1	22.6	23.5	23.6	23.7	23.6	23.6	22.3	22.3
7/28/2018	2	22.8	23.7	23.6	23.7	23.7	23.6	22.3	22.5
7/28/2018	3	23.3	23.7	23.6	23.7	23.6	23.6	22.3	22.5
7/28/2018	4	23.5	23.9	23.7	23.8	23.7	23.7	22.3	22.5
7/28/2018	5	23.6	23.9	23.7	23.8	23.8	23.7	22.3	22.5
7/28/2018	6	23.7	24.0	23.8	23.8	23.8	23.8	22.3	22.4
7/28/2018	7	23.7	24.0	23.8	23.9	23.8	23.8	22.3	22.3
7/28/2018	8	23.8	24.1	23.9	24.0	23.9	23.9	22.3	22.3
7/28/2018	9	23.8	24.1	24.0	24.1	24.1	24.1	22.4	22.7
7/28/2018	10	23.9	24.1	24.1	24.2	24.1	24.1	22.5	22.9
7/28/2018	11	23.6	23.9	24.1	24.2	24.2	24.2	22.6	23.0
7/28/2018	12	22.8	23.4	24.4	24.5	24.4	24.5	22.8	23.2
7/28/2018	13	22.0	23.0	24.3	24.5	24.4	24.6	22.9	23.6
7/28/2018	14	21.5	23.0	24.3	24.5	24.5	24.6	23.1	24.0
7/28/2018	15	21.6	23.2	24.1	24.2	24.3	24.4	23.2	24.4
7/28/2018	16	21.7	23.4	24.3	24.4	24.4	24.4	23.4	24.3
7/28/2018	17	22.1	23.7	24.5	24.5	24.5	24.5	23.4	23.7
7/28/2018	18	22.5	24.0	24.5	24.6	24.5	24.6	23.5	24.0
7/28/2018	19	22.5	23.9	24.4	24.6	24.6	24.6	23.5	24.1
7/28/2018	20	22.8	24.1	24.4	24.5	24.5	24.5	23.5	23.9
7/28/2018	21	22.8	24.1	24.4	24.5	24.5	24.4	23.5	24.0
7/28/2018	22	23.0	24.1	24.5	24.5	24.5	24.5	23.5	24.0
7/28/2018	23	23.0	24.1	24.4	24.5	24.5	24.5	23.5	23.9
7/28/2018	24	22.8	23.9	24.4	24.4	24.4	24.4	23.5	23.8
7/29/2018	1	22.7	23.8	24.2	24.3	24.3	24.3	23.4	23.6
7/29/2018	2	22.7	23.7	24.2	24.2	24.2	24.2	23.4	23.4
7/29/2018	3	22.4	23.4	24.0	24.1	24.1	24.1	23.4	23.2
7/29/2018	4	22.4	23.5	23.8	24.0	24.0	24.0	23.3	23.0
7/29/2018	5	22.4	23.4	23.8	23.9	23.9	23.8	23.3	23.0
7/29/2018	6	22.3	23.3	23.6	23.7	23.7	23.7	23.3	22.9
7/29/2018	7	22.2	23.2	23.6	23.6	23.6	23.6	23.3	22.8
7/29/2018	8	22.1	23.0	23.6	23.7	23.6	23.6	23.3	22.9
7/29/2018	9	22.0	23.1	23.7	23.7	23.7	23.7	23.3	23.0
7/29/2018	10	22.0	23.1	23.8	23.9	23.8	23.9	23.3	23.3
7/29/2018	11	22.1	23.2	24.0	24.1	24.0	24.1	23.3	23.4
7/29/2018	12	22.1	23.3	24.1	24.3	24.2	24.3	23.4	23.8
7/29/2018	13	22.3	23.4	24.3	24.4	24.3	24.4	23.6	24.1
7/29/2018	14	22.3	23.4	24.4	24.6	24.5	24.6	23.7	24.0
7/29/2018	15	22.3	23.5	24.4	24.5	24.5	24.6	23.8	24.6
7/29/2018	16	22.3	23.5	24.4	24.5	24.5	24.6	23.9	24.8
7/29/2018	17	22.5	23.6	24.4	24.5	24.5	24.5	24.0	24.7
7/29/2018	18	22.4	23.6	24.3	24.4	24.4	24.5	24.1	24.6
7/29/2018	19	22.5	23.6	24.2	24.4	24.4	24.4	24.1	24.6
7/29/2018	20	22.5	23.7	24.1	24.2	24.2	24.3	24.0	24.4
7/29/2018	21	22.5	23.6	24.1	24.1	24.2	24.2	24.0	24.2
7/29/2018	22	22.5	23.6	24.0	24.1	24.1	24.1	23.9	24.0
7/29/2018	23	22.4	23.5	24.0	24.1	24.1	24.0	23.8	23.8

7/29/2018	24	22.5	23.4	23.8	24.0	24.0	24.0	23.7	23.6
7/30/2018	1	22.5	23.3	23.7	23.8	23.8	23.8	23.7	23.4
7/30/2018	2	22.4	23.2	23.5	23.7	23.7	23.7	23.6	23.3
7/30/2018	3	22.3	23.1	23.4	23.5	23.5	23.5	23.5	23.2
7/30/2018	4	22.2	22.9	23.2	23.3	23.4	23.4	23.5	23.1
7/30/2018	5	22.1	22.8	23.0	23.1	23.2	23.2	23.4	23.0
7/30/2018	6	22.0	22.7	22.9	23.0	23.0	23.0	23.3	22.9
7/30/2018	7	22.0	22.7	22.8	22.9	22.9	22.9	23.3	22.8
7/30/2018	8	21.9	22.6	22.9	22.9	22.9	22.9	23.2	22.8
7/30/2018	9	21.8	22.6	23.0	23.0	23.0	23.0	23.1	22.8
7/30/2018	10	21.6	22.5	23.2	23.2	23.1	23.2	23.1	23.0
7/30/2018	11	21.6	22.5	23.3	23.4	23.3	23.4	23.2	23.1
7/30/2018	12	21.5	22.6	23.4	23.5	23.4	23.5	23.3	23.4
7/30/2018	13	21.5	22.6	23.5	23.6	23.5	23.6	23.4	23.8
7/30/2018	14	21.5	22.7	23.6	23.8	23.7	23.8	23.5	24.1
7/30/2018	15	21.6	22.7	23.7	23.8	23.8	23.9	23.6	24.4
7/30/2018	16	21.6	22.8	23.7	23.8	23.8	23.9	23.7	24.3
7/30/2018	17	21.6	22.7	23.6	23.8	23.8	23.8	23.8	24.2
7/30/2018	18	21.5	22.8	23.4	23.6	23.6	23.7	23.8	24.0
7/30/2018	19	21.5	22.8	23.4	23.5	23.5	23.5	23.8	24.1
7/30/2018	20	21.5	22.8	23.4	23.5	23.5	23.4	23.7	24.0
7/30/2018	21	21.5	22.7	23.3	23.4	23.4	23.4	23.6	23.9
7/30/2018	22	21.5	22.5	23.1	23.3	23.3	23.3	23.6	23.9
7/30/2018	23	21.5	22.5	23.0	23.1	23.1	23.1	23.5	23.7
7/30/2018	24	21.4	22.5	23.0	23.1	23.0	23.0	23.4	23.5
7/31/2018	1	21.4	22.4	22.9	23.0	23.0	23.0	23.4	23.4
7/31/2018	2	21.4	22.4	22.9	23.0	22.9	22.9	23.3	23.3
7/31/2018	3	21.3	22.3	22.8	22.9	22.9	22.9	23.3	23.2
7/31/2018	4	21.3	22.3	22.7	22.8	22.8	22.8	23.2	23.1
7/31/2018	5	21.3	22.3	22.7	22.7	22.7	22.7	23.2	23.0
7/31/2018	6	21.3	22.2	22.6	22.7	22.7	22.7	23.1	22.9
7/31/2018	7	21.2	22.2	22.5	22.6	22.6	22.6	23.1	22.9
7/31/2018	8	21.2	22.2	22.6	22.7	22.6	22.6	23.0	22.8
7/31/2018	9	21.2	22.2	22.7	22.8	22.7	22.7	23.0	22.8
7/31/2018	10	21.1	22.2	22.8	22.9	22.9	22.9	23.0	22.9
7/31/2018	11	21.1	22.1	22.9	23.0	22.9	23.0	23.1	23.1
7/31/2018	12	21.1	22.2	23.0	23.1	23.0	23.1	23.2	23.4
7/31/2018	13	21.1	22.3	23.1	23.2	23.2	23.3	23.3	23.8
7/31/2018	14	21.1	22.4	23.3	23.3	23.3	23.4	23.3	23.8
7/31/2018	15	21.1	22.5	23.4	23.5	23.4	23.5	23.4	23.8
7/31/2018	16	21.2	22.6	23.4	23.6	23.5	23.6	23.5	23.7
7/31/2018	17	21.2	22.6	23.4	23.5	23.5	23.6	23.6	23.8
7/31/2018	18	21.3	22.6	23.4	23.5	23.5	23.5	23.6	23.8
7/31/2018	19	21.3	22.7	23.3	23.4	23.4	23.5	23.5	23.6
7/31/2018	20	21.3	22.7	23.3	23.4	23.3	23.4	23.5	23.7
7/31/2018	21	21.3	22.7	23.3	23.4	23.3	23.3	23.5	23.7
7/31/2018	22	21.3	22.7	23.3	23.4	23.4	23.4	23.5	23.5
7/31/2018	23	21.3	22.7	23.3	23.4	23.4	23.4	23.4	23.6
7/31/2018	24	21.3	22.7	23.2	23.4	23.4	23.4	23.4	23.5

Date	Low Level Outlet Pipe -Auto- (Deg. C)	Top of Reach 1 -Logger- (Deg. C)	End of Reach 1 -Logger- (Deg. C)	End of Reach 3 -Logger- (Deg. C)	Top of R4 Habitat Channel -Logger- (Deg. C)	End of R4 Habitat Channel -Logger- (Deg. C)	Tailrace at Pump Intake -Auto- (Deg. C)	Tailrace at Pump Intake -Logger- (Deg. C)
7/1/2018	19.1	19.2	19.3	19.1	19.3	19.3	19.3	NA
7/2/2018	18.8	18.9	18.9	18.8	18.9	18.9	19.0	NA
7/3/2018	18.7	18.9	19.0	18.9	19.0	19.1	19.0	NA
7/4/2018	18.7	18.8	19.1	19.0	19.2	19.2	19.0	NA
7/5/2018	18.5	18.6	19.5	19.6	19.8	19.9	19.1	NA
7/6/2018	19.6	19.7	19.8	19.7	19.8	19.9	19.9	NA
7/7/2018	19.9	20.1	20.2	20.1	20.2	20.3	20.2	NA
7/8/2018	20.1	20.2	20.4	20.3	20.5	20.5	20.3	NA
7/9/2018	19.9	20.0	20.6	20.7	20.3	20.6	20.4	NA
7/10/2018	20.6	20.7	20.7	20.6	20.7	20.8	20.8	NA
7/11/2018	20.6	20.8	21.1	21.0	20.9	21.1	20.9	NA
7/12/2018	19.5	19.6	20.5	20.6	20.3	20.6	20.3	NA
7/13/2018	19.6	19.6	20.3	20.4	20.5	20.6	20.7	NA
7/14/2018	20.4	20.6	21.1	21.1	20.9	21.1	20.9	NA
7/15/2018	20.2	20.3	20.6	20.5	20.7	20.8	20.8	NA
7/16/2018	20.1	20.3	21.4	21.6	21.6	21.7	21.7	NA
7/17/2018	18.8	19.0	20.7	21.0	21.6	21.7	22.0	NA
7/18/2018	21.4	21.6	21.5	21.2	21.5	21.7	21.9	NA
7/19/2018	23.5	23.6	20.9	20.7	21.4	21.5	22.2	NA
7/20/2018	23.4	23.6	23.7	23.8	23.7	23.3	22.2	23.1
7/21/2018	22.4	22.7	22.9	22.9	22.9	22.9	22.8	22.9
7/22/2018	20.3	21.5	22.1	22.2	22.2	22.2	22.3	22.4
7/23/2018	19.8	21.2	22.0	22.1	22.0	22.1	22.3	22.4
7/24/2018	19.5	21.0	22.0	22.1	22.0	22.1	22.2	22.6
7/25/2018	19.1	20.6	21.5	21.6	21.6	21.6	22.1	22.4
7/26/2018	19.0	20.6	21.5	21.6	21.5	21.6	21.9	22.0
7/27/2018	20.2	21.8	22.5	22.5	22.5	22.5	21.9	22.0
7/28/2018	22.9	23.8	24.1	24.2	24.2	24.2	22.9	23.3
7/29/2018	22.3	23.4	24.0	24.1	24.1	24.2	23.6	23.7
7/30/2018	21.8	22.7	23.3	23.4	23.4	23.4	23.5	23.5
7/31/2018	21.2	22.4	23.0	23.1	23.1	23.1	23.3	23.4