# 2011 Chelan River Temperature Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|
| 9/1/2011 | N/A | 21.1 | 20.5 | 19.9 | 19.8 | 19.8 | 21.4 | 21.1 |
| 9/2/2011 | N/A | 20.9 | 20.3 | 19.8 | 19.8 | 19.8 | 21.1 | 20.9 |
| 9/3/2011 | N/A | 20.2 | 20.0 | 19.6 | 19.6 | 19.6 | 20.6 | 20.4 |
| 9/4/2011 | N/A | 20.1 | 19.8 | 19.2 | 19.1 | 19.2 | 20.8 | 20.5 |
| 9/5/2011 | N/A | 20.0 | 20.0 | 19.6 | 19.5 | 19.6 | 21.0 | 20.2 |
| 9/6/2011 | N/A | 20.1 | 20.2 | 19.8 | 19.7 | 19.8 | 20.7 | 20.3 |
| 9/7/2011 | N/A | 20.3 | 20.1 | 19.7 | 19.6 | 19.7 | 20.7 | 20.6 |
| 9/8/2011 | N/A | 20.6 | 20.5 | 20.1 | 20.0 | 20.1 | 20.9 | 20.8 |
| 9/9/2011 | N/A | 20.4 | 20.6 | 20.4 | 20.3 | 20.4 | 20.9 | 20.7 |
| 9/10/2011 | N/A | 20.4 | 20.6 | 20.2 | 20.2 | 20.3 | 21.0 | 20.8 |
| 9/11/2011 | N/A | 20.5 | 20.3 | 20.0 | 19.9 | 20.0 | 21.0 | 20.9 |
| 9/12/2011 | N/A | 20.7 | 20.7 | 20.8 | 20.7 | 20.8 | 21.2 | 21.0 |
| 9/13/2011 | N/A | 21.2 | 20.6 | 20.3 | 20.2 | 20.3 | 21.5 | 21.3 |
| 9/14/2011 | N/A | 21.1 | 20.5 | 20.2 | 20.1 | 20.1 | 21.3 | 21.1 |
| 9/15/2011 | N/A | 20.9 | 19.9 | 19.5 | 19.4 | 19.3 | 21.2 | 20.8 |
| 9/16/2011 | N/A | 20.4 | 19.4 | 18.7 | 18.6 | 18.5 | 20.8 | 20.4 |
| 9/17/2011 | N/A | 19.8 | 18.8 | 17.9 | 17.8 | 17.7 | 20.3 | 19.7 |
| 9/18/2011 | N/A | 19.5 | 19.4 | 18.6 | 18.5 | 18.5 | 20.3 | 19.7 |
| 9/19/2011 | N/A | 19.4 | 19.5 | 18.8 | 18.7 | 18.8 | 19.8 | 19.4 |
| 9/20/2011 | N/A | 19.1 | 19.2 | 18.3 | 18.2 | 18.2 | 19.6 | 19.1 |
| 9/21/2011 | N/A | 18.9 | 19.2 | 18.0 | 17.9 | 17.9 | 19.3 | 18.9 |
| 9/22/2011 | N/A | 18.8 | 19.4 | 18.0 | 18.0 | 18.0 | 19.1 | 18.8 |
| 9/23/2011 | N/A | 18.9 | 19.9 | 19.0 | 18.9 | 19.1 | 19.1 | 18.9 |
| 9/24/2011 | N/A | 19.2 | 19.2 | 18.8 | 18.7 | 18.7 | 19.4 | 19.2 |
| 9/25/2011 | N/A | 19.1 | 18.9 | 18.8 | 18.7 | 18.8 | 19.3 | 19.1 |
| 9/26/2011 | N/A | 18.3 | 18.1 | 17.7 | 17.7 | 17.6 | 18.6 | 18.4 |
| 9/27/2011 | N/A | 18.1 | 18.2 | 17.8 | 17.7 | 17.7 | 18.4 | 18.2 |
| 9/28/2011 | N/A | 17.8 | 17.7 | 16.8 | 16.7 | 16.7 | 18.1 | 17.8 |
| 9/29/2011 | N/A | 17.6 | 17.6 | 16.6 | 16.6 | 16.6 | 18.0 | 17.7 |
| 9/30/2011 | N/A | 17.7 | 17.8 | 16.8 | 16.7 | 16.8 | 18.0 | 17.8 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/1/2011 | 1 | N/A | 21.0 | 19.9 | 19.5 | 19.4 | 19.4 | 21.5 | 21.3 |
| 9/1/2011 | 2 | N/A | 21.0 | 19.8 | 19.2 | 19.2 | 19.1 | 21.5 | 21.2 |
| 9/1/2011 | 3 | N/A | 20.9 | 19.7 | 19.1 | 19.0 | 18.9 | 21.4 | 21.2 |
| 9/1/2011 | 4 | N/A | 20.9 | 19.7 | 18.9 | 18.9 | 18.7 | 21.4 | 21.1 |
| 9/1/2011 | 5 | N/A | 20.8 | 19.6 | 18.8 | 18.8 | 18.6 | 21.4 | 21.1 |
| 9/1/2011 | 6 | N/A | 20.8 | 19.6 | 18.7 | 18.6 | 18.4 | 21.4 | 21.1 |
| 9/1/2011 | 7 | N/A | 20.7 | 19.5 | 18.6 | 18.6 | 18.4 | 21.3 | 21.0 |
| 9/1/2011 | 8 | N/A | 20.8 | 19.6 | 18.7 | 18.5 | 18.4 | 21.3 | 20.9 |
| 9/1/2011 | 9 | N/A | 20.8 | 19.9 | 18.8 | 18.6 | 18.5 | 21.3 | 20.9 |
| 9/1/2011 | 10 | N/A | 20.9 | 20.3 | 18.9 | 18.7 | 18.7 | 21.3 | 20.9 |
| 9/1/2011 | 11 | N/A | 21.0 | 20.8 | 19.2 | 18.9 | 19.0 | 21.3 | 21.0 |
| 9/1/2011 | 12 | N/A | 21.0 | 21.3 | 19.4 | 19.2 | 19.7 | 21.3 | 21.0 |
| 9/1/2011 | 13 | N/A | 21.1 | 21.9 | 20.2 | 19.8 | 19.9 | 21.3 | 21.1 |
| 9/1/2011 | 14 | N/A | 21.3 | 22.3 | 20.6 | 20.4 | 20.4 | 21.3 | 21.2 |
| 9/1/2011 | 15 | N/A | 21.5 | 22.5 | 21.4 | 21.3 | 21.2 | 21.4 | 21.2 |
| 9/1/2011 | 16 | N/A | 21.5 | 22.3 | 21.6 | 21.6 | 21.5 | 21.4 | 21.3 |
| 9/1/2011 | 17 | N/A | 21.5 | 22.1 | 21.8 | 21.8 | 21.7 | 21.4 | 21.4 |
| 9/1/2011 | 18 | N/A | 21.4 | 21.4 | 21.8 | 21.8 | 21.6 | 21.5 | 21.3 |
| 9/1/2011 | 19 | N/A | 21.3 | 20.8 | 21.6 | 21.6 | 21.4 | 21.5 | 21.3 |
| 9/1/2011 | 20 | N/A | 21.2 | 20.2 | 21.2 | 21.2 | 21.1 | 21.5 | 21.3 |
| 9/1/2011 | 21 | N/A | 21.2 | 19.8 | 20.7 | 20.7 | 20.7 | 21.5 | 21.2 |
| 9/1/2011 | 22 | N/A | 21.2 | 19.6 | 20.2 | 20.2 | 20.2 | 21.5 | 21.2 |
| 9/1/2011 | 23 | N/A | 21.1 | 19.5 | 19.7 | 19.7 | 19.7 | 21.4 | 21.2 |
| 9/1/2011 | 24 | N/A | 21.1 | 19.4 | 19.3 | 19.2 | 19.2 | 21.3 | 21.1 |
| 9/2/2011 | 1 | N/A | 21.0 | 19.3 | 19.0 | 19.0 | 18.9 | 21.3 | 21.0 |
| 9/2/2011 | 2 | N/A | 20.9 | 19.3 | 18.8 | 18.8 | 18.7 | 21.2 | 20.9 |
| 9/2/2011 | 3 | N/A | 20.8 | 19.2 | 18.7 | 18.6 | 18.4 | 21.2 | 20.8 |
| 9/2/2011 | 4 | N/A | 20.8 | 19.2 | 18.5 | 18.5 | 18.4 | 21.1 | 20.8 |
| 9/2/2011 | 5 | N/A | 20.7 | 19.1 | 18.5 | 18.5 | 18.3 | 21.1 | 20.8 |
| 9/2/2011 | 6 | N/A | 20.6 | 19.0 | 18.5 | 18.4 | 18.3 | 21.1 | 20.7 |
| 9/2/2011 | 7 | N/A | 20.6 | 19.0 | 18.4 | 18.3 | 18.2 | 21.0 | 20.7 |
| 9/2/2011 | 8 | N/A | 20.7 | 19.0 | 18.4 | 18.3 | 18.2 | 21.0 | 20.7 |
| 9/2/2011 | 9 | N/A | 20.7 | 19.5 | 18.7 | 18.4 | 18.4 | 21.0 | 20.6 |
| 9/2/2011 | 10 | N/A | 20.8 | 20.0 | 18.8 | 18.5 | 18.7 | 21.0 | 20.7 |
| 9/2/2011 | 11 | N/A | 20.8 | 20.5 | 19.0 | 18.7 | 18.9 | 21.0 | 20.7 |
| 9/2/2011 | 12 | N/A | 20.9 | 21.2 | 19.4 | 19.1 | 19.3 | 21.0 | 20.7 |
| 9/2/2011 | 13 | N/A | 21.0 | 21.8 | 20.0 | 19.7 | 19.8 | 21.0 | 20.8 |
| 9/2/2011 | 14 | N/A | 21.1 | 22.2 | 20.7 | 20.4 | 20.6 | 21.1 | 20.9 |
| 9/2/2011 | 15 | N/A | 21.1 | 22.4 | 21.2 | 21.1 | 21.2 | 21.1 | 21.0 |
| 9/2/2011 | 16 | N/A | 21.0 | 22.3 | 21.5 | 21.6 | 21.7 | 21.1 | 21.0 |
| 9/2/2011 | 17 | N/A | 21.1 | 22.1 | 21.9 | 21.9 | 22.0 | 21.2 | 21.1 |
| 9/2/2011 | 18 | N/A | 21.2 | 21.6 | 21.9 | 21.9 | 21.9 | 21.2 | 21.1 |
| 9/2/2011 | 19 | N/A | 21.1 | 20.9 | 21.8 | 21.8 | 21.7 | 21.3 | 21.1 |
| 9/2/2011 | 20 | N/A | 21.1 | 20.5 | 21.4 | 21.4 | 21.5 | 21.3 | 21.1 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/2/2011 | 21 | N/A | 21.0 | 20.1 | 21.0 | 21.0 | 21.0 | 21.3 | 21.0 |
| 9/2/2011 | 22 | N/A | 21.0 | 19.8 | 20.5 | 20.5 | 20.6 | 21.3 | 21.0 |
| 9/2/2011 | 23 | N/A | 20.9 | 19.5 | 20.0 | 20.0 | 20.2 | 21.2 | 20.9 |
| 9/2/2011 | 24 | N/A | 20.8 | 19.4 | 19.6 | 19.6 | 19.7 | 21.2 | 20.9 |
| 9/3/2011 | 1 | N/A | 20.8 | 19.3 | 19.2 | 19.2 | 19.3 | 21.1 | 20.9 |
| 9/3/2011 | 2 | N/A | 20.7 | 19.3 | 18.9 | 19.0 | 18.9 | 21.1 | 20.8 |
| 9/3/2011 | 3 | N/A | 20.7 | 19.2 | 18.8 | 18.8 | 18.7 | 21.1 | 20.8 |
| 9/3/2011 | 4 | N/A | 20.6 | 19.1 | 18.6 | 18.6 | 18.5 | 21.0 | 20.7 |
| 9/3/2011 | 5 | N/A | 20.5 | 18.9 | 18.5 | 18.4 | 18.4 | 21.0 | 20.7 |
| 9/3/2011 | 6 | N/A | 20.5 | 18.9 | 18.3 | 18.3 | 18.2 | 20.9 | 20.6 |
| 9/3/2011 | 7 | N/A | 20.4 | 18.8 | 18.2 | 18.2 | 18.1 | 20.9 | 20.6 |
| 9/3/2011 | 8 | N/A | 20.5 | 18.8 | 18.2 | 18.1 | 18.0 | 20.8 | 20.5 |
| 9/3/2011 | 9 | N/A | 20.5 | 19.2 | 18.4 | 18.1 | 18.2 | 20.8 | 20.4 |
| 9/3/2011 | 10 | N/A | 20.5 | 19.7 | 18.5 | 18.2 | 18.4 | 20.7 | 20.4 |
| 9/3/2011 | 11 | N/A | 20.6 | 20.3 | 18.8 | 18.4 | 18.7 | 20.7 | 20.4 |
| 9/3/2011 | 12 | N/A | 20.6 | 20.9 | 19.2 | 18.8 | 19.0 | 20.6 | 20.3 |
| 9/3/2011 | 13 | N/A | 20.6 | 21.5 | 19.7 | 19.4 | 19.5 | 20.6 | 20.4 |
| 9/3/2011 | 14 | N/A | 20.5 | 21.9 | 20.5 | 20.2 | 20.3 | 20.5 | 20.4 |
| 9/3/2011 | 15 | N/A | 20.4 | 22.1 | 20.9 | 20.8 | 20.9 | 20.4 | 20.3 |
| 9/3/2011 | 16 | N/A | 19.8 | 22.1 | 21.2 | 21.3 | 21.5 | 20.4 | 20.2 |
| 9/3/2011 | 17 | N/A | 19.8 | 21.8 | 21.6 | 21.7 | 21.7 | 20.3 | 20.1 |
| 9/3/2011 | 18 | N/A | 19.6 | 21.3 | 21.7 | 21.7 | 21.7 | 20.3 | 20.0 |
| 9/3/2011 | 19 | N/A | 19.4 | 20.7 | 21.5 | 21.5 | 21.5 | 20.2 | 20.0 |
| 9/3/2011 | 20 | N/A | 19.5 | 20.1 | 21.2 | 21.2 | 21.2 | 20.1 | 19.9 |
| 9/3/2011 | 21 | N/A | 19.3 | 19.5 | 20.7 | 20.8 | 20.8 | 20.1 | 20.0 |
| 9/3/2011 | 22 | N/A | 19.7 | 19.1 | 20.2 | 20.2 | 20.3 | 20.2 | 20.1 |
| 9/3/2011 | 23 | N/A | 19.7 | 18.9 | 19.6 | 19.6 | 19.7 | 20.2 | 20.1 |
| 9/3/2011 | 24 | N/A | 19.8 | 18.7 | 19.0 | 19.0 | 19.2 | 20.2 | 20.2 |
| 9/4/2011 | 1 | N/A | 19.9 | 18.5 | 18.5 | 18.5 | 18.6 | 20.3 | 20.2 |
| 9/4/2011 | 2 | N/A | 19.9 | 18.4 | 18.2 | 18.2 | 18.2 | 20.3 | 20.2 |
| 9/4/2011 | 3 | N/A | 20.0 | 18.3 | 17.9 | 17.9 | 17.8 | 20.3 | 20.2 |
| 9/4/2011 | 4 | N/A | 20.0 | 18.3 | 17.6 | 17.6 | 17.6 | 20.3 | 20.1 |
| 9/4/2011 | 5 | N/A | 19.9 | 18.2 | 17.5 | 17.5 | 17.4 | 20.4 | 20.1 |
| 9/4/2011 | 6 | N/A | 19.9 | 18.2 | 17.3 | 17.3 | 17.2 | 20.4 | 20.1 |
| 9/4/2011 | 7 | N/A | 19.9 | 18.2 | 17.2 | 17.2 | 17.1 | 20.4 | 20.1 |
| 9/4/2011 | 8 | N/A | 20.0 | 18.2 | 17.3 | 17.2 | 17.1 | 20.4 | 20.0 |
| 9/4/2011 | 9 | N/A | 20.1 | 18.7 | 17.6 | 17.3 | 17.3 | 20.4 | 20.0 |
| 9/4/2011 | 10 | N/A | 20.1 | 19.3 | 17.7 | 17.4 | 17.6 | 20.5 | 20.2 |
| 9/4/2011 | 11 | N/A | 20.2 | 19.9 | 18.0 | 17.7 | 17.9 | 20.8 | 20.3 |
| 9/4/2011 | 12 | N/A | 20.2 | 20.6 | 18.5 | 18.2 | 18.3 | 21.0 | 20.5 |
| 9/4/2011 | 13 | N/A | 20.3 | 21.3 | 19.3 | 18.9 | 19.1 | 21.1 | 21.0 |
| 9/4/2011 | 14 | N/A | 20.3 | 21.8 | 20.0 | 19.8 | 19.9 | 21.1 | 21.2 |
| 9/4/2011 | 15 | N/A | 20.4 | 22.0 | 20.6 | 20.5 | 20.6 | 21.2 | N/A |
| 9/4/2011 | 16 | N/A | 20.3 | 22.1 | 21.1 | 21.2 | 21.3 | 21.2 | 21.4 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/4/2011 | 17 | N/A | 20.2 | 21.9 | 21.6 | 21.6 | 21.7 | 21.2 | 21.4 |
| 9/4/2011 | 18 | N/A | 20.2 | 21.4 | 21.8 | 21.7 | 21.8 | 21.3 | 21.3 |
| 9/4/2011 | 19 | N/A | 20.2 | 20.8 | 21.6 | 21.6 | 21.7 | 21.3 | 20.9 |
| 9/4/2011 | 20 | N/A | 20.1 | 20.3 | 21.3 | 21.3 | 21.4 | 21.2 | 20.7 |
| 9/4/2011 | 21 | N/A | 20.1 | 19.9 | 20.9 | 20.9 | 21.0 | 21.2 | 20.4 |
| 9/4/2011 | 22 | N/A | 20.1 | 19.6 | 20.3 | 20.3 | 20.5 | 21.1 | 20.3 |
| 9/4/2011 | 23 | N/A | 20.1 | 19.4 | 19.9 | 19.8 | 20.0 | 21.1 | 20.3 |
| 9/4/2011 | 24 | N/A | 20.0 | 19.2 | 19.4 | 19.4 | 19.5 | 21.0 | 20.3 |
| 9/5/2011 | 1 | N/A | 19.9 | 19.1 | 19.0 | 19.0 | 19.1 | 21.0 | 20.1 |
| 9/5/2011 | 2 | N/A | 19.9 | 18.9 | 18.7 | 18.7 | 18.7 | 21.0 | 20.1 |
| 9/5/2011 | 3 | N/A | 19.9 | 18.8 | 18.5 | 18.5 | 18.5 | 20.9 | 20.1 |
| 9/5/2011 | 4 | N/A | 19.8 | 18.7 | 18.3 | 18.3 | 18.2 | 20.9 | 20.1 |
| 9/5/2011 | 5 | N/A | 19.8 | 18.6 | 18.1 | 18.1 | 18.1 | 20.9 | 20.1 |
| 9/5/2011 | 6 | N/A | 19.8 | 18.6 | 18.0 | 17.9 | 17.9 | 20.9 | 20.0 |
| 9/5/2011 | 7 | N/A | 19.8 | 18.5 | 17.9 | 17.8 | 17.7 | 20.9 | 20.0 |
| 9/5/2011 | 8 | N/A | 19.9 | 18.6 | 17.8 | 17.7 | 17.7 | 20.9 | 19.8 |
| 9/5/2011 | 9 | N/A | 20.0 | 19.0 | 18.0 | 17.8 | 17.8 | 20.9 | 20.0 |
| 9/5/2011 | 10 | N/A | 20.0 | 19.5 | 18.1 | 17.9 | 18.1 | 20.9 | 20.0 |
| 9/5/2011 | 11 | N/A | 20.1 | 20.1 | 18.4 | 18.1 | 18.3 | 20.9 | 20.1 |
| 9/5/2011 | 12 | N/A | 20.2 | 20.9 | 18.9 | 18.5 | 18.8 | 21.0 | 20.5 |
| 9/5/2011 | 13 | N/A | 20.2 | 21.6 | 19.5 | 19.2 | 19.3 | 21.0 | 19.9 |
| 9/5/2011 | 14 | N/A | 20.3 | 22.0 | 20.3 | 20.1 | 20.2 | 21.1 | N/A |
| 9/5/2011 | 15 | N/A | 20.4 | 22.2 | 21.0 | 20.9 | 21.0 | 21.1 | N/A |
| 9/5/2011 | 16 | N/A | 20.2 | 22.2 | 21.5 | 21.5 | 21.6 | 21.2 | N/A |
| 9/5/2011 | 17 | N/A | 20.2 | 21.9 | 21.9 | 21.9 | 22.0 | 21.3 | N/A |
| 9/5/2011 | 18 | N/A | 20.2 | 21.4 | 22.0 | 22.0 | 21.9 | 21.3 | 21.1 |
| 9/5/2011 | 19 | N/A | 20.1 | 20.9 | 21.8 | 21.8 | 21.8 | 21.3 | 20.7 |
| 9/5/2011 | 20 | N/A | 20.1 | 20.4 | 21.5 | 21.4 | 21.5 | 21.2 | 20.5 |
| 9/5/2011 | 21 | N/A | 20.1 | 20.0 | 21.0 | 21.0 | 21.1 | 21.2 | N/A |
| 9/5/2011 | 22 | N/A | 20.1 | 19.7 | 20.5 | 20.5 | 20.7 | 21.1 | N/A |
| 9/5/2011 | 23 | N/A | 20.0 | 19.5 | 20.0 | 20.0 | 20.2 | 21.1 | 20.2 |
| 9/5/2011 | 24 | N/A | 20.0 | 19.3 | 19.5 | 19.5 | 19.7 | 21.0 | 20.2 |
| 9/6/2011 | 1 | N/A | 20.0 | 19.2 | 19.1 | 19.1 | 19.2 | 20.9 | 20.2 |
| 9/6/2011 | 2 | N/A | 20.1 | 19.1 | 18.8 | 18.8 | 18.9 | 20.9 | 20.2 |
| 9/6/2011 | 3 | N/A | 20.1 | 19.0 | 18.6 | 18.6 | 18.6 | 20.8 | 20.1 |
| 9/6/2011 | 4 | N/A | 20.1 | 18.9 | 18.4 | 18.4 | 18.4 | 20.7 | 20.0 |
| 9/6/2011 | 5 | N/A | 19.9 | 18.8 | 18.2 | 18.2 | 18.2 | 20.7 | 20.0 |
| 9/6/2011 | 6 | N/A | 19.8 | 18.8 | 18.1 | 18.1 | 18.0 | 20.6 | 20.0 |
| 9/6/2011 | 7 | N/A | 20.0 | 18.7 | 18.0 | 18.0 | 17.9 | 20.6 | 20.3 |
| 9/6/2011 | 8 | N/A | 20.1 | 18.8 | 18.0 | 17.9 | 17.9 | 20.6 | 20.3 |
| 9/6/2011 | 9 | N/A | 20.1 | 19.3 | 18.3 | 18.0 | 18.1 | 20.6 | 20.2 |
| 9/6/2011 | 10 | N/A | 20.2 | 19.7 | 18.5 | 18.2 | 18.3 | 20.6 | 20.1 |
| 9/6/2011 | 11 | N/A | 20.2 | 20.4 | 18.7 | 18.4 | 18.7 | 20.6 | 20.1 |
| 9/6/2011 | 12 | N/A | 20.3 | 21.1 | 19.2 | 18.8 | 19.1 | 20.6 | 20.2 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/6/2011 | 13 | N/A | 20.3 | 21.8 | 19.9 | 19.6 | 19.7 | 20.6 | 20.2 |
| 9/6/2011 | 14 | N/A | 20.4 | 22.2 | 20.7 | 20.4 | 20.5 | 20.6 | 20.3 |
| 9/6/2011 | 15 | N/A | 20.4 | 22.5 | 21.2 | 21.2 | 21.3 | 20.6 | 20.4 |
| 9/6/2011 | 16 | N/A | 20.1 | 22.4 | 21.7 | 21.8 | 21.9 | 20.6 | 20.5 |
| 9/6/2011 | 17 | N/A | 20.0 | 22.1 | 22.1 | 22.1 | 22.3 | 20.6 | 20.5 |
| 9/6/2011 | 18 | N/A | 20.2 | 21.6 | 22.3 | 22.2 | 22.3 | 20.6 | 20.6 |
| 9/6/2011 | 19 | N/A | 20.1 | 21.0 | 22.0 | 22.0 | 22.1 | 20.6 | 20.6 |
| 9/6/2011 | 20 | N/A | 20.1 | 20.4 | 21.7 | 21.7 | 21.8 | 20.7 | 20.5 |
| 9/6/2011 | 21 | N/A | 20.2 | 20.0 | 21.1 | 21.2 | 21.3 | 20.7 | 20.7 |
| 9/6/2011 | 22 | N/A | 20.1 | 19.6 | 20.6 | 20.6 | 20.8 | 20.7 | 20.6 |
| 9/6/2011 | 23 | N/A | 20.2 | 19.4 | 20.1 | 20.1 | 20.3 | 20.7 | 20.5 |
| 9/6/2011 | 24 | N/A | 20.0 | 19.3 | 19.6 | 19.6 | 19.7 | 20.7 | 20.5 |
| 9/7/2011 | 1 | N/A | 20.0 | 19.2 | 19.2 | 19.2 | 19.3 | 20.7 | 20.5 |
| 9/7/2011 | 2 | N/A | 20.0 | 19.0 | 18.9 | 18.9 | 18.9 | 20.6 | 20.5 |
| 9/7/2011 | 3 | N/A | 20.0 | 18.9 | 18.7 | 18.6 | 18.6 | 20.6 | 20.4 |
| 9/7/2011 | 4 | N/A | 19.8 | 18.8 | 18.4 | 18.4 | 18.4 | 20.6 | 20.4 |
| 9/7/2011 | 5 | N/A | 19.7 | 18.7 | 18.3 | 18.2 | 18.2 | 20.5 | 20.3 |
| 9/7/2011 | 6 | N/A | 19.6 | 18.6 | 18.2 | 18.1 | 18.1 | 20.5 | 20.2 |
| 9/7/2011 | 7 | N/A | 19.8 | 18.6 | 18.0 | 18.0 | 17.9 | 20.4 | 20.2 |
| 9/7/2011 | 8 | N/A | 19.8 | 18.6 | 18.0 | 17.9 | 17.8 | 20.5 | 20.2 |
| 9/7/2011 | 9 | N/A | 20.0 | 19.1 | 18.2 | 17.9 | 18.0 | 20.5 | 20.1 |
| 9/7/2011 | 10 | N/A | 19.8 | 19.6 | 18.4 | 18.1 | 18.2 | 20.5 | 20.1 |
| 9/7/2011 | 11 | N/A | 19.8 | 20.3 | 18.6 | 18.3 | 18.5 | 20.5 | 20.1 |
| 9/7/2011 | 12 | N/A | 19.9 | 21.1 | 19.1 | 18.7 | 19.0 | 20.5 | 20.1 |
| 9/7/2011 | 13 | N/A | 20.0 | 21.7 | 19.7 | 19.4 | 19.6 | 20.5 | 20.2 |
| 9/7/2011 | 14 | N/A | 20.1 | 22.1 | 20.5 | 20.3 | 20.4 | 20.6 | 20.3 |
| 9/7/2011 | 15 | N/A | 20.4 | 22.2 | 21.1 | 21.1 | 21.2 | 20.6 | 20.5 |
| 9/7/2011 | 16 | N/A | 20.5 | 22.1 | 21.7 | 21.7 | 21.8 | 20.7 | 20.7 |
| 9/7/2011 | 17 | N/A | 20.8 | 21.8 | 22.0 | 22.0 | 22.1 | 20.8 | 20.8 |
| 9/7/2011 | 18 | N/A | 20.8 | 21.4 | 22.0 | 22.0 | 22.1 | 20.9 | 20.9 |
| 9/7/2011 | 19 | N/A | 20.9 | 20.9 | 21.8 | 21.7 | 21.8 | 21.0 | 21.0 |
| 9/7/2011 | 20 | N/A | 21.0 | 20.6 | 21.4 | 21.4 | 21.5 | 21.1 | 21.1 |
| 9/7/2011 | 21 | N/A | 21.1 | 20.2 | 21.0 | 21.0 | 21.1 | 21.2 | 21.2 |
| 9/7/2011 | 22 | N/A | 21.2 | 20.0 | 20.5 | 20.5 | 20.7 | 21.3 | 21.2 |
| 9/7/2011 | 23 | N/A | 21.2 | 19.9 | 20.1 | 20.1 | 20.2 | 21.4 | 21.2 |
| 9/7/2011 | 24 | N/A | 21.2 | 19.8 | 19.7 | 19.7 | 19.8 | 21.3 | 21.2 |
| 9/8/2011 | 1 | N/A | 21.0 | 19.8 | 19.5 | 19.4 | 19.5 | 21.2 | 21.1 |
| 9/8/2011 | 2 | N/A | 20.8 | 19.7 | 19.2 | 19.2 | 19.2 | 21.2 | 21.0 |
| 9/8/2011 | 3 | N/A | 20.7 | 19.7 | 19.1 | 19.0 | 19.0 | 21.1 | 20.8 |
| 9/8/2011 | 4 | N/A | 20.6 | 19.6 | 18.9 | 18.9 | 18.9 | 21.0 | 20.7 |
| 9/8/2011 | 5 | N/A | 20.5 | 19.5 | 18.8 | 18.8 | 18.7 | 20.9 | 20.7 |
| 9/8/2011 | 6 | N/A | 20.4 | 19.4 | 18.7 | 18.7 | 18.6 | 20.8 | 20.6 |
| 9/8/2011 | 7 | N/A | 20.3 | 19.3 | 18.6 | 18.6 | 18.5 | 20.8 | 20.5 |
| 9/8/2011 | 8 | N/A | 20.4 | 19.3 | 18.7 | 18.5 | 18.5 | 20.8 | 20.4 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/8/2011 | 9 | N/A | 20.5 | 19.6 | 18.7 | 18.5 | 18.6 | 20.8 | 20.4 |
| 9/8/2011 | 10 | N/A | 20.5 | 20.1 | 19.0 | 18.7 | 18.8 | 20.8 | 20.4 |
| 9/8/2011 | 11 | N/A | 20.7 | 20.7 | 19.2 | 18.9 | 19.2 | 20.9 | 20.5 |
| 9/8/2011 | 12 | N/A | 20.8 | 21.4 | 19.6 | 19.3 | 19.6 | 20.9 | 20.6 |
| 9/8/2011 | 13 | N/A | 20.9 | 21.9 | 20.1 | 19.9 | 20.0 | 20.9 | 20.7 |
| 9/8/2011 | 14 | N/A | 20.8 | 22.1 | 20.9 | 20.7 | 20.6 | 20.9 | 20.8 |
| 9/8/2011 | 15 | N/A | 20.9 | 22.3 | 21.5 | 21.3 | 21.5 | 20.9 | 20.8 |
| 9/8/2011 | 16 | N/A | 20.8 | 22.2 | 21.8 | 21.8 | 21.9 | 20.9 | 20.9 |
| 9/8/2011 | 17 | N/A | 20.7 | 22.0 | 22.1 | 22.0 | 22.2 | 21.0 | 21.0 |
| 9/8/2011 | 18 | N/A | 20.7 | 21.6 | 22.1 | 22.0 | 22.1 | 21.0 | 21.0 |
| 9/8/2011 | 19 | N/A | 20.5 | 21.2 | 21.9 | 21.9 | 21.9 | 21.0 | 20.9 |
| 9/8/2011 | 20 | N/A | 20.5 | 20.7 | 21.6 | 21.6 | 21.7 | 21.0 | 20.9 |
| 9/8/2011 | 21 | N/A | 20.4 | 20.4 | 21.2 | 21.2 | 21.3 | 21.0 | 20.9 |
| 9/8/2011 | 22 | N/A | 20.4 | 20.2 | 20.8 | 20.8 | 20.9 | 21.0 | 20.8 |
| 9/8/2011 | 23 | N/A | 20.4 | 20.0 | 20.4 | 20.3 | 20.5 | 21.0 | 20.8 |
| 9/8/2011 | 24 | N/A | 20.4 | 19.9 | 20.0 | 20.0 | 20.1 | 21.0 | 20.9 |
| 9/9/2011 | 1 | N/A | 20.4 | 19.8 | 19.7 | 19.7 | 19.7 | 21.0 | 20.9 |
| 9/9/2011 | 2 | N/A | 20.5 | 19.7 | 19.5 | 19.4 | 19.5 | 20.9 | 20.9 |
| 9/9/2011 | 3 | N/A | 20.5 | 19.6 | 19.2 | 19.2 | 19.2 | 20.9 | 20.8 |
| 9/9/2011 | 4 | N/A | 20.5 | 19.5 | 19.1 | 19.1 | 19.1 | 20.9 | 20.8 |
| 9/9/2011 | 5 | N/A | 20.4 | 19.6 | 19.0 | 18.9 | 18.9 | 20.9 | 20.8 |
| 9/9/2011 | 6 | N/A | 20.3 | 19.4 | 18.8 | 18.8 | 18.8 | 20.9 | 20.7 |
| 9/9/2011 | 7 | N/A | 20.2 | 19.4 | 18.7 | 18.7 | 18.6 | 20.9 | 20.6 |
| 9/9/2011 | 8 | N/A | 20.2 | 19.4 | 18.7 | 18.6 | 18.6 | 20.9 | 20.5 |
| 9/9/2011 | 9 | N/A | 20.4 | 19.8 | 18.9 | 18.7 | 18.8 | 20.9 | 20.5 |
| 9/9/2011 | 10 | N/A | 20.4 | 20.3 | 19.1 | 18.8 | 19.0 | 20.9 | 20.5 |
| 9/9/2011 | 11 | N/A | 20.4 | 20.9 | 19.3 | 19.1 | 19.3 | 20.9 | 20.5 |
| 9/9/2011 | 12 | N/A | 20.4 | 21.5 | 19.7 | 19.4 | 19.7 | 20.9 | 20.6 |
| 9/9/2011 | 13 | N/A | 20.5 | 22.1 | 20.4 | 20.1 | 20.3 | 20.9 | 20.6 |
| 9/9/2011 | 14 | N/A | 20.5 | 22.5 | 21.1 | 20.9 | 21.1 | 20.9 | 20.7 |
| 9/9/2011 | 15 | N/A | 20.6 | 22.6 | 21.7 | 21.7 | 21.8 | 20.9 | 20.8 |
| 9/9/2011 | 16 | N/A | 20.5 | 22.6 | 22.2 | 22.2 | 22.4 | 20.9 | 20.8 |
| 9/9/2011 | 17 | N/A | 20.4 | 22.3 | 22.5 | 22.5 | 22.7 | 20.9 | 20.9 |
| 9/9/2011 | 18 | N/A | 20.4 | 21.8 | 22.6 | 22.6 | 22.7 | 20.9 | 20.9 |
| 9/9/2011 | 19 | N/A | 20.4 | 21.3 | 22.4 | 22.4 | 22.5 | 20.9 | 20.9 |
| 9/9/2011 | 20 | N/A | 20.2 | 20.9 | 22.1 | 22.1 | 22.2 | 20.9 | 20.8 |
| 9/9/2011 | 21 | N/A | 20.4 | 20.5 | 21.7 | 21.6 | 21.8 | 20.9 | 20.9 |
| 9/9/2011 | 22 | N/A | 20.2 | 20.2 | 21.2 | 21.1 | 21.3 | 21.0 | 20.8 |
| 9/9/2011 | 23 | N/A | 20.1 | 20.0 | 20.7 | 20.6 | 20.8 | 21.0 | 20.7 |
| 9/9/2011 | 24 | N/A | 20.0 | 19.9 | 20.2 | 20.2 | 20.3 | 20.9 | 20.8 |
| 9/10/2011 | 1 | N/A | 20.1 | 19.8 | 19.8 | 19.8 | 19.9 | 20.9 | 20.7 |
| 9/10/2011 | 2 | N/A | 20.0 | 19.7 | 19.5 | 19.5 | 19.6 | 20.9 | 20.7 |
| 9/10/2011 | 3 | N/A | 20.2 | 19.6 | 19.3 | 19.3 | 19.3 | 20.9 | 20.7 |
| 9/10/2011 | 4 | N/A | 20.2 | 19.5 | 19.1 | 19.1 | 19.1 | 20.9 | 20.7 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/10/2011 | 5 | N/A | 20.1 | 19.4 | 18.9 | 18.9 | 18.9 | 20.8 | 20.7 |
| 9/10/2011 | 6 | N/A | 19.9 | 19.3 | 18.8 | 18.7 | 18.7 | 20.8 | 20.6 |
| 9/10/2011 | 7 | N/A | 20.0 | 19.3 | 18.6 | 18.6 | 18.6 | 20.8 | 20.6 |
| 9/10/2011 | 8 | N/A | 20.1 | 19.3 | 18.6 | 18.5 | 18.5 | 20.8 | 20.5 |
| 9/10/2011 | 9 | N/A | 20.1 | 19.7 | 18.8 | 18.6 | 18.6 | 20.8 | 20.5 |
| 9/10/2011 | 10 | N/A | 20.1 | 20.2 | 19.0 | 18.7 | 18.9 | 20.8 | 20.5 |
| 9/10/2011 | 11 | N/A | 20.3 | 20.8 | 19.2 | 18.9 | 19.2 | 20.8 | 20.5 |
| 9/10/2011 | 12 | N/A | 20.4 | 21.4 | 19.6 | 19.2 | 19.6 | 20.9 | 20.5 |
| 9/10/2011 | 13 | N/A | 20.3 | 22.0 | 20.2 | 19.9 | 20.1 | 20.9 | 20.7 |
| 9/10/2011 | 14 | N/A | 20.5 | 22.3 | 20.9 | 20.7 | 20.9 | 20.9 | 20.7 |
| 9/10/2011 | 15 | N/A | 20.6 | 22.4 | 21.6 | 21.5 | 21.6 | 20.9 | 20.8 |
| 9/10/2011 | 16 | N/A | 20.6 | 22.4 | 22.1 | 22.1 | 22.2 | 21.0 | 21.0 |
| 9/10/2011 | 17 | N/A | 20.6 | 22.2 | 22.4 | 22.4 | 22.5 | 21.0 | 21.1 |
| 9/10/2011 | 18 | N/A | 20.6 | 21.7 | 22.5 | 22.5 | 22.5 | 21.1 | 21.1 |
| 9/10/2011 | 19 | N/A | 20.8 | 21.2 | 22.2 | 22.3 | 22.3 | 21.1 | 21.2 |
| 9/10/2011 | 20 | N/A | 20.6 | 20.8 | 21.9 | 21.9 | 22.0 | 21.2 | 21.2 |
| 9/10/2011 | 21 | N/A | 20.7 | 20.5 | 21.4 | 21.4 | 21.6 | 21.2 | 21.1 |
| 9/10/2011 | 22 | N/A | 20.7 | 20.2 | 20.9 | 20.9 | 21.1 | 21.3 | 21.1 |
| 9/10/2011 | 23 | N/A | 20.6 | 20.1 | 20.4 | 20.4 | 20.6 | 21.2 | 21.0 |
| 9/10/2011 | 24 | N/A | 20.5 | 19.9 | 20.0 | 20.0 | 20.1 | 21.2 | 21.0 |
| 9/11/2011 | 1 | N/A | 20.3 | 19.8 | 19.7 | 19.7 | 19.7 | 21.1 | 20.9 |
| 9/11/2011 | 2 | N/A | 20.3 | 19.7 | 19.4 | 19.4 | 19.4 | 21.1 | 20.9 |
| 9/11/2011 | 3 | N/A | 20.3 | 19.6 | 19.2 | 19.2 | 19.2 | 21.0 | 20.8 |
| 9/11/2011 | 4 | N/A | 20.2 | 19.5 | 19.0 | 19.0 | 19.0 | 20.9 | 20.7 |
| 9/11/2011 | 5 | N/A | 20.1 | 19.3 | 18.9 | 18.8 | 18.8 | 20.9 | 20.7 |
| 9/11/2011 | 6 | N/A | 20.0 | 19.3 | 18.7 | 18.7 | 18.6 | 20.8 | 20.6 |
| 9/11/2011 | 7 | N/A | 20.0 | 19.2 | 18.6 | 18.5 | 18.5 | 20.9 | 20.5 |
| 9/11/2011 | 8 | N/A | 20.2 | 19.3 | 18.5 | 18.4 | 18.4 | 20.9 | 20.5 |
| 9/11/2011 | 9 | N/A | 20.3 | 19.6 | 18.7 | 18.5 | 18.5 | 20.9 | 20.5 |
| 9/11/2011 | 10 | N/A | 20.4 | 20.0 | 18.9 | 18.6 | 18.7 | 20.9 | 20.6 |
| 9/11/2011 | 11 | N/A | 20.5 | 20.6 | 19.1 | 18.8 | 19.0 | 20.9 | 20.7 |
| 9/11/2011 | 12 | N/A | 20.6 | 21.2 | 19.4 | 19.1 | 19.4 | 21.0 | 20.8 |
| 9/11/2011 | 13 | N/A | 20.7 | 21.4 | 21.3 | 21.2 | 21.2 | 21.0 | 20.8 |
| 9/11/2011 | 14 | N/A | 20.7 | 21.6 | 21.6 | 21.5 | 21.6 | 21.0 | 20.9 |
| 9/11/2011 | 15 | N/A | 20.8 | 21.5 | 21.7 | 21.7 | 21.8 | 21.0 | 21.0 |
| 9/11/2011 | 16 | N/A | 20.8 | 21.4 | 21.7 | 21.6 | 21.8 | 21.1 | 21.0 |
| 9/11/2011 | 17 | N/A | 20.7 | 21.3 | 21.5 | 21.5 | 21.6 | 21.1 | 21.1 |
| 9/11/2011 | 18 | N/A | 20.7 | 20.9 | 21.4 | 21.3 | 21.4 | 21.2 | 21.1 |
| 9/11/2011 | 19 | N/A | 20.6 | 20.6 | 20.9 | 20.9 | 21.0 | 21.2 | 21.1 |
| 9/11/2011 | 20 | N/A | 20.8 | 20.4 | 20.7 | 20.6 | 20.7 | 21.2 | 21.0 |
| 9/11/2011 | 21 | N/A | 20.7 | 20.3 | 20.5 | 20.4 | 20.4 | 21.3 | 21.1 |
| 9/11/2011 | 22 | N/A | 20.8 | 20.3 | 20.4 | 20.3 | 20.3 | 21.3 | 21.1 |
| 9/11/2011 | 23 | N/A | 20.7 | 20.3 | 20.3 | 20.3 | 20.3 | 21.3 | 21.1 |
| 9/11/2011 | 24 | N/A | 20.7 | 20.3 | 20.3 | 20.2 | 20.2 | 21.2 | 21.0 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/12/2011 | 1 | N/A | 20.7 | 20.2 | 20.2 | 20.2 | 20.2 | 21.2 | 21.0 |
| 9/12/2011 | 2 | N/A | 20.6 | 20.1 | 20.1 | 20.1 | 20.1 | 21.2 | 21.0 |
| 9/12/2011 | 3 | N/A | 20.7 | 20.1 | 20.1 | 20.0 | 20.0 | 21.1 | 20.9 |
| 9/12/2011 | 4 | N/A | 20.6 | 20.0 | 20.0 | 19.9 | 20.0 | 21.1 | 20.9 |
| 9/12/2011 | 5 | N/A | 20.5 | 20.0 | 20.0 | 19.9 | 19.9 | 21.1 | 20.8 |
| 9/12/2011 | 6 | N/A | 20.5 | 19.9 | 19.9 | 19.8 | 19.8 | 21.0 | 20.7 |
| 9/12/2011 | 7 | N/A | 20.5 | 19.9 | 19.8 | 19.8 | 19.8 | 21.0 | 20.7 |
| 9/12/2011 | 8 | N/A | 20.6 | 19.9 | 19.8 | 19.7 | 19.7 | 21.0 | 20.6 |
| 9/12/2011 | 9 | N/A | 20.7 | 20.2 | 19.9 | 19.8 | 19.8 | 21.0 | 20.7 |
| 9/12/2011 | 10 | N/A | 20.7 | 20.7 | 20.2 | 20.1 | 20.1 | 21.0 | 20.7 |
| 9/12/2011 | 11 | N/A | 20.7 | 21.1 | 20.6 | 20.5 | 20.5 | 21.0 | 20.8 |
| 9/12/2011 | 12 | N/A | 20.7 | 21.5 | 21.1 | 21.0 | 21.0 | 21.0 | 20.8 |
| 9/12/2011 | 13 | N/A | 20.7 | 21.9 | 21.6 | 21.5 | 21.6 | 21.0 | 20.8 |
| 9/12/2011 | 14 | N/A | 20.7 | 22.0 | 22.0 | 21.9 | 22.1 | 21.0 | 20.9 |
| 9/12/2011 | 15 | N/A | 20.8 | 22.1 | 22.2 | 22.1 | 22.4 | 21.1 | 21.0 |
| 9/12/2011 | 16 | N/A | 20.7 | 22.0 | 22.2 | 22.2 | 22.4 | 21.2 | 21.1 |
| 9/12/2011 | 17 | N/A | 20.7 | 21.8 | 22.2 | 22.2 | 22.3 | 21.2 | 21.2 |
| 9/12/2011 | 18 | N/A | 20.6 | 21.4 | 22.0 | 21.9 | 22.0 | 21.3 | 21.1 |
| 9/12/2011 | 19 | N/A | 20.6 | 21.0 | 21.7 | 21.6 | 21.6 | 21.3 | 21.2 |
| 9/12/2011 | 20 | N/A | 20.7 | 20.7 | 21.3 | 21.3 | 21.3 | 21.4 | 21.2 |
| 9/12/2011 | 21 | N/A | 20.7 | 20.3 | 21.0 | 21.0 | 21.0 | 21.5 | 21.3 |
| 9/12/2011 | 22 | N/A | 20.9 | 20.1 | 20.6 | 20.6 | 20.7 | 21.5 | 21.3 |
| 9/12/2011 | 23 | N/A | 21.0 | 19.9 | 20.3 | 20.2 | 20.3 | 21.5 | 21.4 |
| 9/12/2011 | 24 | N/A | 21.1 | 19.8 | 19.9 | 19.9 | 20.0 | 21.5 | 21.4 |
| 9/13/2011 | 1 | N/A | 21.2 | 19.8 | 19.6 | 19.6 | 19.7 | 21.5 | 21.4 |
| 9/13/2011 | 2 | N/A | 21.3 | 19.7 | 19.5 | 19.4 | 19.4 | 21.5 | 21.5 |
| 9/13/2011 | 3 | N/A | 21.5 | 19.7 | 19.3 | 19.3 | 19.2 | 21.6 | 21.5 |
| 9/13/2011 | 4 | N/A | 21.5 | 19.7 | 19.2 | 19.2 | 19.1 | 21.6 | 21.4 |
| 9/13/2011 | 5 | N/A | 21.4 | 19.7 | 19.1 | 19.1 | 19.0 | 21.6 | 21.4 |
| 9/13/2011 | 6 | N/A | 21.3 | 19.7 | 19.1 | 19.0 | 19.0 | 21.6 | 21.4 |
| 9/13/2011 | 7 | N/A | 21.3 | 19.7 | 19.0 | 19.0 | 18.9 | 21.6 | 21.3 |
| 9/13/2011 | 8 | N/A | 21.4 | 19.7 | 19.0 | 18.9 | 18.9 | 21.6 | 21.3 |
| 9/13/2011 | 9 | N/A | 21.4 | 20.1 | 19.2 | 19.0 | 19.0 | 21.6 | 21.3 |
| 9/13/2011 | 10 | N/A | 21.5 | 20.5 | 19.4 | 19.2 | 19.3 | 21.6 | 21.4 |
| 9/13/2011 | 11 | N/A | 21.6 | 21.2 | 19.8 | 19.5 | 19.7 | 21.6 | 21.4 |
| 9/13/2011 | 12 | N/A | 21.7 | 21.8 | 20.0 | 19.8 | 20.0 | 21.6 | 21.4 |
| 9/13/2011 | 13 | N/A | 21.7 | 22.1 | 20.6 | 20.3 | 20.4 | 21.6 | 21.4 |
| 9/13/2011 | 14 | N/A | 21.4 | 22.1 | 21.2 | 21.1 | 21.0 | 21.6 | 21.3 |
| 9/13/2011 | 15 | N/A | 21.3 | 22.1 | 21.7 | 21.6 | 21.6 | 21.5 | 21.3 |
| 9/13/2011 | 16 | N/A | 21.2 | 22.1 | 21.9 | 21.8 | 21.9 | 21.5 | 21.3 |
| 9/13/2011 | 17 | N/A | 21.0 | 21.8 | 22.0 | 21.9 | 22.0 | 21.5 | 21.3 |
| 9/13/2011 | 18 | N/A | 20.8 | 21.6 | 22.0 | 21.9 | 22.0 | 21.4 | 21.2 |
| 9/13/2011 | 19 | N/A | 20.7 | 21.1 | 21.8 | 21.7 | 21.8 | 21.4 | 21.2 |
| 9/13/2011 | 20 | N/A | 20.8 | 20.7 | 21.5 | 21.4 | 21.5 | 21.4 | 21.2 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/13/2011 | 21 | N/A | 20.7 | 20.4 | 21.2 | 21.1 | 21.2 | 21.4 | 21.2 |
| 9/13/2011 | 22 | N/A | 20.7 | 20.1 | 20.7 | 20.7 | 20.9 | 21.3 | 21.2 |
| 9/13/2011 | 23 | N/A | 20.9 | 19.9 | 20.4 | 20.3 | 20.5 | 21.3 | 21.2 |
| 9/13/2011 | 24 | N/A | 20.8 | 19.7 | 20.0 | 20.0 | 20.1 | 21.3 | 21.2 |
| 9/14/2011 | 1 | N/A | 20.8 | 19.6 | 19.7 | 19.7 | 19.7 | 21.3 | 21.1 |
| 9/14/2011 | 2 | N/A | 20.8 | 19.5 | 19.4 | 19.4 | 19.4 | 21.3 | 21.1 |
| 9/14/2011 | 3 | N/A | 20.9 | 19.5 | 19.2 | 19.2 | 19.2 | 21.2 | 21.1 |
| 9/14/2011 | 4 | N/A | 20.8 | 19.4 | 19.0 | 19.0 | 19.0 | 21.2 | 21.1 |
| 9/14/2011 | 5 | N/A | 20.8 | 19.2 | 18.9 | 18.9 | 18.8 | 21.2 | 21.0 |
| 9/14/2011 | 6 | N/A | 20.8 | 19.2 | 18.7 | 18.7 | 18.7 | 21.2 | 21.0 |
| 9/14/2011 | 7 | N/A | 20.8 | 19.1 | 18.6 | 18.6 | 18.5 | 21.2 | 20.9 |
| 9/14/2011 | 8 | N/A | 20.8 | 19.1 | 18.6 | 18.5 | 18.4 | 21.2 | 20.9 |
| 9/14/2011 | 9 | N/A | 20.9 | 19.5 | 18.8 | 18.5 | 18.6 | 21.2 | 20.8 |
| 9/14/2011 | 10 | N/A | 21.0 | 20.0 | 18.9 | 18.6 | 18.8 | 21.2 | 20.8 |
| 9/14/2011 | 11 | N/A | 21.1 | 20.6 | 19.1 | 18.8 | 19.0 | 21.2 | 20.9 |
| 9/14/2011 | 12 | N/A | 21.2 | 21.2 | 19.4 | 19.1 | 19.4 | 21.2 | 21.0 |
| 9/14/2011 | 13 | N/A | 21.3 | 21.9 | 20.1 | 19.7 | 19.9 | 21.2 | 21.1 |
| 9/14/2011 | 14 | N/A | 21.5 | 22.3 | 20.6 | 20.5 | 20.6 | 21.3 | 21.2 |
| 9/14/2011 | 15 | N/A | 21.6 | 22.7 | 21.2 | 21.2 | 21.3 | 21.3 | 21.3 |
| 9/14/2011 | 16 | N/A | 21.6 | 22.7 | 21.7 | 21.8 | 21.8 | 21.3 | 21.4 |
| 9/14/2011 | 17 | N/A | 21.5 | 22.4 | 22.2 | 22.2 | 22.2 | 21.3 | 21.4 |
| 9/14/2011 | 18 | N/A | 21.3 | 21.8 | 22.3 | 22.3 | 22.2 | 21.4 | 21.4 |
| 9/14/2011 | 19 | N/A | 21.1 | 21.4 | 22.3 | 22.2 | 22.2 | 21.4 | 21.3 |
| 9/14/2011 | 20 | N/A | 21.0 | 21.0 | 21.9 | 21.9 | 21.9 | 21.4 | 21.3 |
| 9/14/2011 | 21 | N/A | 21.0 | 20.5 | 21.4 | 21.4 | 21.5 | 21.5 | 21.3 |
| 9/14/2011 | 22 | N/A | 21.0 | 20.2 | 21.0 | 21.0 | 21.1 | 21.6 | 21.2 |
| 9/14/2011 | 23 | N/A | 20.9 | 20.0 | 20.5 | 20.5 | 20.7 | 21.8 | 21.2 |
| 9/14/2011 | 24 | N/A | 20.9 | 19.8 | 20.1 | 20.1 | 20.2 | 21.7 | 20.9 |
| 9/15/2011 | 1 | N/A | 20.9 | 19.7 | 19.7 | 19.7 | 19.8 | 21.7 | 20.8 |
| 9/15/2011 | 2 | N/A | 20.8 | 19.5 | 19.5 | 19.4 | 19.4 | 21.6 | 21.0 |
| 9/15/2011 | 3 | N/A | 20.8 | 19.3 | 19.2 | 19.2 | 19.2 | 21.6 | 20.8 |
| 9/15/2011 | 4 | N/A | 20.8 | 19.1 | 19.0 | 19.0 | 18.9 | 21.5 | 20.7 |
| 9/15/2011 | 5 | N/A | 20.8 | 19.1 | 18.8 | 18.8 | 18.7 | 21.5 | 20.7 |
| 9/15/2011 | 6 | N/A | 20.8 | 19.0 | 18.6 | 18.6 | 18.5 | 21.4 | 20.7 |
| 9/15/2011 | 7 | N/A | 20.8 | 19.0 | 18.4 | 18.4 | 18.3 | 21.4 | 20.9 |
| 9/15/2011 | 8 | N/A | 20.9 | 19.0 | 18.3 | 18.3 | 18.2 | 21.3 | 20.9 |
| 9/15/2011 | 9 | N/A | 20.9 | 19.2 | 18.4 | 18.3 | 18.2 | 21.3 | 20.9 |
| 9/15/2011 | 10 | N/A | 21.0 | 19.7 | 18.6 | 18.4 | 18.5 | 21.2 | 20.8 |
| 9/15/2011 | 11 | N/A | 20.9 | 20.0 | 18.6 | 18.5 | 18.5 | 21.2 | 20.8 |
| 9/15/2011 | 12 | N/A | 21.1 | 20.6 | 19.1 | 18.9 | 19.0 | 21.2 | 20.8 |
| 9/15/2011 | 13 | N/A | 21.1 | 21.4 | 19.6 | 19.3 | 19.5 | 21.1 | 20.8 |
| 9/15/2011 | 14 | N/A | 21.1 | 21.7 | 19.9 | 19.8 | 19.9 | 21.1 | 20.9 |
| 9/15/2011 | 15 | N/A | 21.2 | 21.8 | 20.4 | 20.4 | 20.4 | 21.1 | 20.9 |
| 9/15/2011 | 16 | N/A | 21.0 | 21.6 | 20.9 | 20.8 | 20.6 | 21.0 | 21.0 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/15/2011 | 17 | N/A | 20.9 | 21.2 | 21.0 | 21.0 | 20.8 | 21.0 | 20.9 |
| 9/15/2011 | 18 | N/A | 20.9 | 20.7 | 20.9 | 20.9 | 20.7 | 21.0 | 20.9 |
| 9/15/2011 | 19 | N/A | 20.8 | 20.2 | 20.7 | 20.6 | 20.5 | 21.0 | 20.9 |
| 9/15/2011 | 20 | N/A | 20.8 | 19.8 | 20.3 | 20.3 | 20.1 | 21.0 | 20.9 |
| 9/15/2011 | 21 | N/A | 20.8 | 19.5 | 19.9 | 19.9 | 19.7 | 21.0 | 20.8 |
| 9/15/2011 | 22 | N/A | 20.7 | 19.3 | 19.5 | 19.5 | 19.4 | 21.0 | 20.8 |
| 9/15/2011 | 23 | N/A | 20.7 | 19.3 | 19.1 | 19.1 | 19.0 | 21.1 | N/A |
| 9/15/2011 | 24 | N/A | 20.6 | 19.1 | 18.8 | 18.8 | 18.7 | 21.3 | N/A |
| 9/16/2011 | 1 | N/A | 20.6 | 19.0 | 18.5 | 18.5 | 18.4 | 21.3 | 20.4 |
| 9/16/2011 | 2 | N/A | 20.5 | 18.9 | 18.4 | 18.4 | 18.3 | 21.2 | 20.4 |
| 9/16/2011 | 3 | N/A | 20.5 | 18.8 | 18.3 | 18.2 | 18.2 | 21.1 | N/A |
| 9/16/2011 | 4 | N/A | 20.4 | 18.8 | 18.1 | 18.1 | 18.0 | 21.1 | 20.3 |
| 9/16/2011 | 5 | N/A | 20.4 | 18.7 | 17.9 | 17.9 | 17.8 | 21.0 | N/A |
| 9/16/2011 | 6 | N/A | 20.3 | 18.7 | 17.8 | 17.8 | 17.7 | 20.9 | N/A |
| 9/16/2011 | 7 | N/A | 20.3 | 18.6 | 17.7 | 17.7 | 17.6 | 20.9 | 20.5 |
| 9/16/2011 | 8 | N/A | 20.3 | 18.6 | 17.7 | 17.7 | 17.5 | 20.8 | 20.4 |
| 9/16/2011 | 9 | N/A | 20.3 | 19.0 | 17.9 | 17.7 | 17.7 | 20.8 | 20.3 |
| 9/16/2011 | 10 | N/A | 20.4 | 19.4 | 18.1 | 17.8 | 17.9 | 20.8 | 20.2 |
| 9/16/2011 | 11 | N/A | 20.4 | 19.8 | 18.1 | 17.9 | 18.0 | 20.7 | 20.2 |
| 9/16/2011 | 12 | N/A | 20.4 | 20.3 | 18.4 | 18.2 | 18.3 | 20.7 | 20.2 |
| 9/16/2011 | 13 | N/A | 20.6 | 20.7 | 19.0 | 18.7 | 18.7 | 20.6 | 20.3 |
| 9/16/2011 | 14 | N/A | 20.6 | 21.1 | 19.3 | 19.2 | 19.3 | 20.6 | 20.4 |
| 9/16/2011 | 15 | N/A | 20.5 | 21.0 | 19.8 | 19.7 | 19.6 | 20.6 | 20.4 |
| 9/16/2011 | 16 | N/A | 20.5 | 20.8 | 20.1 | 20.1 | 19.9 | 20.6 | 20.4 |
| 9/16/2011 | 17 | N/A | 20.4 | 20.3 | 20.2 | 20.2 | 19.9 | 20.6 | 20.5 |
| 9/16/2011 | 18 | N/A | 20.4 | 19.8 | 20.1 | 20.0 | 19.8 | 20.7 | 20.5 |
| 9/16/2011 | 19 | N/A | 20.3 | 19.4 | 19.7 | 19.7 | 19.5 | 20.7 | 20.4 |
| 9/16/2011 | 20 | N/A | 20.3 | 19.1 | 19.2 | 19.2 | 19.1 | 20.7 | 20.4 |
| 9/16/2011 | 21 | N/A | 20.2 | 18.9 | 18.8 | 18.8 | 18.6 | 20.7 | 20.3 |
| 9/16/2011 | 22 | N/A | 20.2 | 18.7 | 18.4 | 18.4 | 18.4 | 20.8 | 20.3 |
| 9/16/2011 | 23 | N/A | 20.1 | 18.6 | 18.2 | 18.2 | 18.1 | 20.8 | 20.2 |
| 9/16/2011 | 24 | N/A | 20.1 | 18.5 | 18.0 | 17.9 | 17.9 | 20.8 | N/A |
| 9/17/2011 | 1 | N/A | 20.0 | 18.4 | 17.8 | 17.7 | 17.6 | 20.8 | 20.0 |
| 9/17/2011 | 2 | N/A | 20.0 | 18.5 | 17.6 | 17.6 | 17.4 | 20.8 | 20.0 |
| 9/17/2011 | 3 | N/A | 19.9 | 18.4 | 17.4 | 17.4 | 17.3 | 20.8 | 19.9 |
| 9/17/2011 | 4 | N/A | 19.9 | 18.4 | 17.4 | 17.3 | 17.2 | 20.8 | 19.9 |
| 9/17/2011 | 5 | N/A | 19.9 | 18.4 | 17.3 | 17.3 | 17.1 | 20.8 | 19.9 |
| 9/17/2011 | 6 | N/A | 19.9 | 18.4 | 17.3 | 17.3 | 17.1 | 20.7 | 19.8 |
| 9/17/2011 | 7 | N/A | 19.8 | 18.3 | 17.3 | 17.2 | 17.1 | 20.4 | 20.0 |
| 9/17/2011 | 8 | N/A | 19.8 | 18.4 | 17.3 | 17.3 | 17.2 | 20.3 | 19.9 |
| 9/17/2011 | 9 | N/A | 19.8 | 18.6 | 17.4 | 17.3 | 17.2 | 20.3 | 19.8 |
| 9/17/2011 | 10 | N/A | 19.8 | 18.7 | 17.4 | 17.4 | 17.3 | 20.2 | 19.7 |
| 9/17/2011 | 11 | N/A | 19.7 | 18.9 | 17.5 | 17.5 | 17.4 | 20.2 | 19.7 |
| 9/17/2011 | 12 | N/A | 19.7 | 19.1 | 17.8 | 17.7 | 17.6 | 20.1 | 19.7 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/17/2011 | 13 | N/A | 19.8 | 19.4 | 18.1 | 17.9 | 17.9 | 20.0 | 19.7 |
| 9/17/2011 | 14 | N/A | 19.8 | 19.5 | 18.2 | 18.1 | 18.1 | 20.0 | 19.7 |
| 9/17/2011 | 15 | N/A | 19.7 | 19.5 | 18.4 | 18.3 | 18.2 | 19.9 | 19.7 |
| 9/17/2011 | 16 | N/A | 19.7 | 19.5 | 18.6 | 18.5 | 18.5 | 19.9 | 19.7 |
| 9/17/2011 | 17 | N/A | 19.7 | 19.3 | 18.7 | 18.6 | 18.5 | 20.0 | 19.7 |
| 9/17/2011 | 18 | N/A | 19.7 | 19.1 | 18.7 | 18.7 | 18.6 | 20.0 | 19.7 |
| 9/17/2011 | 19 | N/A | 19.6 | 19.1 | 18.6 | 18.6 | 18.5 | 20.0 | 19.7 |
| 9/17/2011 | 20 | N/A | 19.6 | 18.9 | 18.5 | 18.4 | 18.3 | 20.1 | 19.7 |
| 9/17/2011 | 21 | N/A | 19.6 | 18.7 | 18.3 | 18.3 | 18.2 | 20.1 | 19.6 |
| 9/17/2011 | 22 | N/A | 19.5 | 18.6 | 18.2 | 18.1 | 18.0 | 20.1 | 19.6 |
| 9/17/2011 | 23 | N/A | 19.5 | 18.4 | 17.9 | 17.9 | 17.7 | 20.1 | 19.4 |
| 9/17/2011 | 24 | N/A | 19.5 | 18.3 | 17.7 | 17.7 | 17.5 | 20.1 | 19.6 |
| 9/18/2011 | 1 | N/A | 19.4 | 18.2 | 17.5 | 17.5 | 17.4 | 20.1 | N/A |
| 9/18/2011 | 2 | N/A | 19.4 | 18.2 | 17.4 | 17.3 | 17.3 | 20.2 | 19.7 |
| 9/18/2011 | 3 | N/A | 19.4 | 18.3 | 17.3 | 17.3 | 17.1 | 20.2 | N/A |
| 9/18/2011 | 4 | N/A | 19.4 | 18.4 | 17.3 | 17.2 | 17.1 | 20.2 | N/A |
| 9/18/2011 | 5 | N/A | 19.4 | 18.5 | 17.2 | 17.2 | 17.1 | 20.2 | 19.4 |
| 9/18/2011 | 6 | N/A | 19.3 | 18.5 | 17.4 | 17.3 | 17.2 | 20.2 | N/A |
| 9/18/2011 | 7 | N/A | 19.3 | 18.4 | 17.5 | 17.5 | 17.3 | 20.2 | 19.6 |
| 9/18/2011 | 8 | N/A | 19.3 | 18.5 | 17.6 | 17.5 | 17.4 | 20.3 | 19.5 |
| 9/18/2011 | 9 | N/A | 19.4 | 18.7 | 17.7 | 17.6 | 17.5 | 20.3 | 19.5 |
| 9/18/2011 | 10 | N/A | 19.5 | 19.0 | 17.9 | 17.7 | 17.7 | 20.3 | 19.5 |
| 9/18/2011 | 11 | N/A | 19.5 | 19.2 | 18.0 | 17.8 | 17.9 | 20.4 | 19.6 |
| 9/18/2011 | 12 | N/A | 19.6 | 19.9 | 18.5 | 18.2 | 18.4 | 20.4 | 19.6 |
| 9/18/2011 | 13 | N/A | 19.8 | 20.5 | 18.9 | 18.6 | 18.8 | 20.5 | 19.7 |
| 9/18/2011 | 14 | N/A | 19.8 | 20.9 | 19.1 | 19.1 | 19.3 | 20.5 | 19.9 |
| 9/18/2011 | 15 | N/A | 19.7 | 21.0 | 19.6 | 19.5 | 19.5 | 20.5 | 20.0 |
| 9/18/2011 | 16 | N/A | 19.6 | 21.0 | 20.0 | 20.1 | 20.1 | 20.5 | 19.9 |
| 9/18/2011 | 17 | N/A | 19.6 | 20.8 | 20.3 | 20.3 | 20.3 | 20.5 | 19.9 |
| 9/18/2011 | 18 | N/A | 19.5 | 20.3 | 20.4 | 20.4 | 20.3 | 20.4 | 19.8 |
| 9/18/2011 | 19 | N/A | 19.5 | 20.0 | 20.3 | 20.3 | 20.2 | 20.4 | 19.7 |
| 9/18/2011 | 20 | N/A | 19.5 | 19.6 | 20.1 | 20.0 | 20.1 | 20.4 | 19.7 |
| 9/18/2011 | 21 | N/A | 19.5 | 19.3 | 19.7 | 19.6 | 19.7 | 20.3 | 19.7 |
| 9/18/2011 | 22 | N/A | 19.5 | 19.2 | 19.3 | 19.2 | 19.3 | 20.3 | 19.6 |
| 9/18/2011 | 23 | N/A | 19.5 | 19.1 | 18.9 | 18.8 | 19.0 | 20.3 | 19.5 |
| 9/18/2011 | 24 | N/A | 19.5 | 19.1 | 18.6 | 18.5 | 18.6 | 20.2 | 19.5 |
| 9/19/2011 | 1 | N/A | 19.5 | 19.0 | 18.4 | 18.3 | 18.3 | 20.2 | 19.6 |
| 9/19/2011 | 2 | N/A | 19.4 | 18.9 | 18.2 | 18.2 | 18.1 | 20.2 | 19.6 |
| 9/19/2011 | 3 | N/A | 19.4 | 18.8 | 18.1 | 18.0 | 18.0 | 20.2 | 19.5 |
| 9/19/2011 | 4 | N/A | 19.4 | 18.9 | 18.0 | 17.9 | 17.9 | 20.1 | 19.4 |
| 9/19/2011 | 5 | N/A | 19.4 | 18.8 | 17.9 | 17.8 | 17.8 | 20.1 | 19.5 |
| 9/19/2011 | 6 | N/A | 19.3 | 18.8 | 17.8 | 17.7 | 17.6 | 20.1 | 19.3 |
| 9/19/2011 | 7 | N/A | 19.3 | 18.7 | 17.7 | 17.7 | 17.5 | 19.9 | 19.4 |
| 9/19/2011 | 8 | N/A | 19.3 | 18.8 | 17.7 | 17.7 | 17.6 | 19.6 | 19.3 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/19/2011 | 9 | N/A | 19.3 | 18.9 | 17.8 | 17.7 | 17.6 | 19.6 | 19.2 |
| 9/19/2011 | 10 | N/A | 19.3 | 19.4 | 18.0 | 17.8 | 17.8 | 19.6 | 19.2 |
| 9/19/2011 | 11 | N/A | 19.4 | 19.9 | 18.3 | 18.0 | 18.2 | 19.6 | 19.2 |
| 9/19/2011 | 12 | N/A | 19.4 | 20.5 | 18.6 | 18.2 | 18.5 | 19.6 | 19.2 |
| 9/19/2011 | 13 | N/A | 19.4 | 20.9 | 18.9 | 18.6 | 18.8 | 19.6 | 19.3 |
| 9/19/2011 | 14 | N/A | 19.6 | 21.1 | 19.3 | 19.3 | 19.4 | 19.6 | 19.3 |
| 9/19/2011 | 15 | N/A | 19.6 | 21.2 | 19.9 | 19.9 | 20.0 | 19.6 | 19.4 |
| 9/19/2011 | 16 | N/A | 19.4 | 21.1 | 20.2 | 20.3 | 20.4 | 19.6 | 19.4 |
| 9/19/2011 | 17 | N/A | 19.4 | 20.7 | 20.5 | 20.5 | 20.5 | 19.6 | 19.4 |
| 9/19/2011 | 18 | N/A | 19.4 | 20.3 | 20.6 | 20.5 | 20.5 | 19.7 | 19.4 |
| 9/19/2011 | 19 | N/A | 19.3 | 19.9 | 20.3 | 20.3 | 20.3 | 19.7 | 19.4 |
| 9/19/2011 | 20 | N/A | 19.3 | 19.3 | 19.9 | 19.9 | 19.9 | 19.7 | 19.4 |
| 9/19/2011 | 21 | N/A | 19.3 | 19.1 | 19.5 | 19.5 | 19.6 | 19.8 | 19.3 |
| 9/19/2011 | 22 | N/A | 19.2 | 18.9 | 19.0 | 19.0 | 19.2 | 19.8 | 19.3 |
| 9/19/2011 | 23 | N/A | 19.2 | 18.7 | 18.6 | 18.6 | 18.7 | 19.8 | 19.2 |
| 9/19/2011 | 24 | N/A | 19.1 | 18.5 | 18.2 | 18.2 | 18.2 | 19.9 | N/A |
| 9/20/2011 | 1 | N/A | 19.1 | 18.5 | 17.9 | 17.8 | 17.9 | 19.9 | N/A |
| 9/20/2011 | 2 | N/A | 19.1 | 18.3 | 17.6 | 17.6 | 17.6 | 20.0 | N/A |
| 9/20/2011 | 3 | N/A | 19.0 | 18.3 | 17.4 | 17.4 | 17.3 | 20.0 | N/A |
| 9/20/2011 | 4 | N/A | 19.0 | 18.2 | 17.2 | 17.2 | 17.2 | 19.9 | N/A |
| 9/20/2011 | 5 | N/A | 18.9 | 18.2 | 17.1 | 17.1 | 17.0 | 19.8 | 19.2 |
| 9/20/2011 | 6 | N/A | 18.9 | 18.1 | 17.0 | 17.0 | 16.9 | 19.7 | 19.1 |
| 9/20/2011 | 7 | N/A | 18.9 | 18.0 | 16.9 | 16.9 | 16.7 | 19.6 | 19.1 |
| 9/20/2011 | 8 | N/A | 18.9 | 18.0 | 16.8 | 16.8 | 16.7 | 19.4 | 19.0 |
| 9/20/2011 | 9 | N/A | 18.9 | 18.4 | 17.0 | 16.8 | 16.8 | 19.3 | 19.0 |
| 9/20/2011 | 10 | N/A | 19.0 | 18.7 | 17.2 | 16.9 | 17.0 | 19.3 | 18.9 |
| 9/20/2011 | 11 | N/A | 19.1 | 19.2 | 17.3 | 17.0 | 17.3 | 19.3 | 19.0 |
| 9/20/2011 | 12 | N/A | 19.2 | 19.8 | 17.6 | 17.3 | 17.6 | 19.4 | 19.0 |
| 9/20/2011 | 13 | N/A | 19.3 | 20.5 | 18.2 | 17.8 | 18.0 | 19.4 | 19.1 |
| 9/20/2011 | 14 | N/A | 19.4 | 20.9 | 18.6 | 18.6 | 18.6 | 19.4 | 19.1 |
| 9/20/2011 | 15 | N/A | 19.5 | 21.1 | 19.3 | 19.3 | 19.3 | 19.5 | 19.2 |
| 9/20/2011 | 16 | N/A | 19.3 | 21.1 | 19.8 | 19.8 | 19.8 | 19.5 | 19.3 |
| 9/20/2011 | 17 | N/A | 19.3 | 20.8 | 20.2 | 20.2 | 20.2 | 19.5 | 19.3 |
| 9/20/2011 | 18 | N/A | 19.3 | 20.3 | 20.4 | 20.3 | 20.2 | 19.5 | 19.3 |
| 9/20/2011 | 19 | N/A | 19.3 | 19.9 | 20.2 | 20.2 | 20.2 | 19.6 | 19.3 |
| 9/20/2011 | 20 | N/A | 19.2 | 19.5 | 19.8 | 19.8 | 19.9 | 19.6 | 19.3 |
| 9/20/2011 | 21 | N/A | 19.2 | 19.3 | 19.4 | 19.4 | 19.5 | 19.6 | 19.2 |
| 9/20/2011 | 22 | N/A | 19.1 | 19.0 | 18.9 | 18.9 | 19.1 | 19.6 | 19.1 |
| 9/20/2011 | 23 | N/A | 19.0 | 18.8 | 18.5 | 18.5 | 18.6 | 19.6 | 19.1 |
| 9/20/2011 | 24 | N/A | 19.0 | 18.7 | 18.1 | 18.1 | 18.2 | 19.7 | N/A |
| 9/21/2011 | 1 | N/A | 18.9 | 18.6 | 17.8 | 17.8 | 17.8 | 19.8 | 19.0 |
| 9/21/2011 | 2 | N/A | 18.9 | 18.6 | 17.6 | 17.5 | 17.5 | 19.8 | 19.1 |
| 9/21/2011 | 3 | N/A | 18.9 | 18.4 | 17.4 | 17.3 | 17.3 | 19.8 | N/A |
| 9/21/2011 | 4 | N/A | 18.8 | 18.5 | 17.2 | 17.2 | 17.2 | 19.7 | 19.0 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/21/2011 | 5 | N/A | 18.8 | 18.4 | 17.1 | 17.1 | 17.0 | 19.7 | 19.0 |
| 9/21/2011 | 6 | N/A | 18.7 | 18.5 | 17.0 | 16.9 | 16.8 | 19.6 | 19.0 |
| 9/21/2011 | 7 | N/A | 18.7 | 18.4 | 16.8 | 16.8 | 16.7 | 19.4 | 18.9 |
| 9/21/2011 | 8 | N/A | 18.7 | 18.4 | 16.8 | 16.7 | 16.7 | 19.2 | 18.7 |
| 9/21/2011 | 9 | N/A | 18.7 | 18.6 | 16.9 | 16.8 | 16.7 | 19.0 | 18.7 |
| 9/21/2011 | 10 | N/A | 18.8 | 19.0 | 17.1 | 16.9 | 17.0 | 19.0 | 18.7 |
| 9/21/2011 | 11 | N/A | 18.9 | 19.5 | 17.4 | 17.0 | 17.3 | 19.0 | 18.7 |
| 9/21/2011 | 12 | N/A | 19.1 | 20.1 | 17.7 | 17.3 | 17.6 | 19.1 | 18.8 |
| 9/21/2011 | 13 | N/A | 19.0 | 20.2 | 17.9 | 17.7 | 17.7 | 19.1 | 18.9 |
| 9/21/2011 | 14 | N/A | 19.1 | 20.5 | 18.7 | 18.5 | 18.4 | 19.1 | 18.9 |
| 9/21/2011 | 15 | N/A | 19.0 | 20.3 | 19.1 | 19.0 | 18.9 | 19.1 | 18.9 |
| 9/21/2011 | 16 | N/A | 19.1 | 20.2 | 19.4 | 19.3 | 19.2 | 19.2 | 19.0 |
| 9/21/2011 | 17 | N/A | 19.1 | 20.1 | 19.5 | 19.4 | 19.4 | 19.2 | 19.0 |
| 9/21/2011 | 18 | N/A | 19.1 | 19.9 | 19.4 | 19.3 | 19.4 | 19.2 | 19.0 |
| 9/21/2011 | 19 | N/A | 19.0 | 19.8 | 19.2 | 19.2 | 19.2 | 19.3 | 19.0 |
| 9/21/2011 | 20 | N/A | 18.9 | 19.6 | 18.9 | 18.9 | 19.0 | 19.3 | 19.0 |
| 9/21/2011 | 21 | N/A | 18.9 | 19.4 | 18.7 | 18.7 | 18.7 | 19.3 | 19.0 |
| 9/21/2011 | 22 | N/A | 18.9 | 19.1 | 18.5 | 18.4 | 18.5 | 19.4 | 18.9 |
| 9/21/2011 | 23 | N/A | 18.8 | 19.0 | 18.2 | 18.2 | 18.2 | 19.4 | 19.0 |
| 9/21/2011 | 24 | N/A | 18.8 | 18.9 | 17.9 | 17.9 | 17.9 | 19.6 | 19.0 |
| 9/22/2011 | 1 | N/A | 18.8 | 18.9 | 17.7 | 17.7 | 17.7 | 19.7 | 18.9 |
| 9/22/2011 | 2 | N/A | 18.7 | 18.8 | 17.5 | 17.5 | 17.5 | 19.7 | N/A |
| 9/22/2011 | 3 | N/A | 18.7 | 18.8 | 17.3 | 17.3 | 17.3 | 19.6 | 18.8 |
| 9/22/2011 | 4 | N/A | 18.7 | 18.7 | 17.2 | 17.2 | 17.1 | 19.5 | 18.9 |
| 9/22/2011 | 5 | N/A | 18.7 | 18.7 | 17.2 | 17.1 | 17.0 | 19.5 | 18.8 |
| 9/22/2011 | 6 | N/A | 18.7 | 18.7 | 17.1 | 17.1 | 17.0 | 19.4 | 18.8 |
| 9/22/2011 | 7 | N/A | 18.6 | 18.7 | 17.0 | 17.0 | 16.9 | 19.2 | 18.8 |
| 9/22/2011 | 8 | N/A | 18.7 | 18.8 | 17.1 | 17.0 | 17.0 | 19.0 | 18.7 |
| 9/22/2011 | 9 | N/A | 18.7 | 18.9 | 17.1 | 17.0 | 17.0 | 18.9 | 18.7 |
| 9/22/2011 | 10 | N/A | 18.7 | 19.1 | 17.2 | 17.1 | 17.1 | 18.9 | 18.7 |
| 9/22/2011 | 11 | N/A | 18.8 | 19.3 | 17.4 | 17.3 | 17.2 | 18.9 | 18.7 |
| 9/22/2011 | 12 | N/A | 18.8 | 19.6 | 17.6 | 17.5 | 17.5 | 18.9 | 18.7 |
| 9/22/2011 | 13 | N/A | 18.9 | 19.9 | 18.0 | 17.8 | 17.9 | 18.9 | 18.7 |
| 9/22/2011 | 14 | N/A | 18.9 | 20.1 | 18.2 | 18.1 | 18.1 | 19.0 | 18.7 |
| 9/22/2011 | 15 | N/A | 19.0 | 20.3 | 18.5 | 18.5 | 18.5 | 19.0 | 18.8 |
| 9/22/2011 | 16 | N/A | 18.9 | 20.4 | 18.9 | 18.8 | 18.7 | 19.0 | 18.8 |
| 9/22/2011 | 17 | N/A | 18.9 | 20.2 | 19.2 | 19.1 | 19.0 | 19.0 | 18.8 |
| 9/22/2011 | 18 | N/A | 18.9 | 20.2 | 19.3 | 19.2 | 19.2 | 19.0 | 18.8 |
| 9/22/2011 | 19 | N/A | 18.8 | 20.0 | 19.3 | 19.2 | 19.2 | 19.0 | 18.8 |
| 9/22/2011 | 20 | N/A | 18.8 | 19.8 | 19.2 | 19.1 | 19.2 | 19.0 | 18.9 |
| 9/22/2011 | 21 | N/A | 18.8 | 19.6 | 19.0 | 18.9 | 19.0 | 19.0 | 18.9 |
| 9/22/2011 | 22 | N/A | 18.8 | 19.5 | 18.8 | 18.7 | 18.8 | 19.0 | 18.9 |
| 9/22/2011 | 23 | N/A | 18.8 | 19.4 | 18.5 | 18.5 | 18.6 | 19.0 | 18.8 |
| 9/22/2011 | 24 | N/A | 18.8 | 19.3 | 18.3 | 18.3 | 18.3 | 19.0 | 18.8 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/23/2011 | 1 | N/A | 18.7 | 19.2 | 18.1 | 18.1 | 18.1 | 19.0 | 18.8 |
| 9/23/2011 | 2 | N/A | 18.7 | 19.2 | 18.0 | 17.9 | 18.0 | 19.0 | 18.7 |
| 9/23/2011 | 3 | N/A | 18.7 | 19.1 | 17.9 | 17.8 | 17.8 | 19.0 | 18.7 |
| 9/23/2011 | 4 | N/A | 18.7 | 19.1 | 17.8 | 17.7 | 17.7 | 18.9 | 18.7 |
| 9/23/2011 | 5 | N/A | 18.7 | 19.1 | 17.7 | 17.7 | 17.7 | 18.9 | 18.7 |
| 9/23/2011 | 6 | N/A | 18.7 | 19.0 | 17.7 | 17.6 | 17.6 | 18.9 | 18.7 |
| 9/23/2011 | 7 | N/A | 18.6 | 19.0 | 17.6 | 17.6 | 17.5 | 18.9 | 18.7 |
| 9/23/2011 | 8 | N/A | 18.6 | 18.9 | 17.6 | 17.6 | 17.5 | 18.9 | 18.7 |
| 9/23/2011 | 9 | N/A | 18.7 | 19.2 | 17.9 | 17.6 | 17.7 | 18.9 | 18.7 |
| 9/23/2011 | 10 | N/A | 18.7 | 19.5 | 18.0 | 17.7 | 17.9 | 18.9 | 18.7 |
| 9/23/2011 | 11 | N/A | 18.9 | 20.1 | 18.2 | 17.9 | 18.2 | 19.0 | 18.7 |
| 9/23/2011 | 12 | N/A | 19.0 | 20.7 | 18.6 | 18.2 | 18.6 | 19.0 | 18.7 |
| 9/23/2011 | 13 | N/A | 19.2 | 21.1 | 19.1 | 18.8 | 19.0 | 19.1 | 18.8 |
| 9/23/2011 | 14 | N/A | 19.3 | 21.3 | 19.6 | 19.5 | 19.7 | 19.1 | 18.9 |
| 9/23/2011 | 15 | N/A | 19.2 | 21.5 | 20.2 | 20.2 | 20.4 | 19.2 | 19.0 |
| 9/23/2011 | 16 | N/A | 19.0 | 21.4 | 20.7 | 20.7 | 20.9 | 19.2 | 19.1 |
| 9/23/2011 | 17 | N/A | 19.0 | 21.2 | 21.1 | 21.1 | 21.2 | 19.3 | 19.2 |
| 9/23/2011 | 18 | N/A | 19.0 | 20.7 | 21.2 | 21.2 | 21.2 | 19.3 | 19.2 |
| 9/23/2011 | 19 | N/A | 19.0 | 20.4 | 21.0 | 21.0 | 21.1 | 19.4 | 19.2 |
| 9/23/2011 | 20 | N/A | 19.0 | 20.1 | 20.7 | 20.7 | 20.8 | 19.4 | 19.2 |
| 9/23/2011 | 21 | N/A | 19.0 | 19.7 | 20.2 | 20.2 | 20.4 | 19.5 | 19.2 |
| 9/23/2011 | 22 | N/A | 19.0 | 19.5 | 19.7 | 19.7 | 19.9 | 19.5 | 19.2 |
| 9/23/2011 | 23 | N/A | 19.1 | 19.4 | 19.2 | 19.2 | 19.4 | 19.5 | 19.2 |
| 9/23/2011 | 24 | N/A | 19.1 | 19.3 | 18.8 | 18.8 | 19.0 | 19.5 | 19.2 |
| 9/24/2011 | 1 | N/A | 19.1 | 19.1 | 18.5 | 18.5 | 18.6 | 19.5 | 19.3 |
| 9/24/2011 | 2 | N/A | 19.0 | 18.9 | 18.3 | 18.2 | 18.3 | 19.5 | 19.3 |
| 9/24/2011 | 3 | N/A | 19.0 | 18.9 | 18.1 | 18.0 | 18.1 | 19.5 | 19.2 |
| 9/24/2011 | 4 | N/A | 19.0 | 18.8 | 17.9 | 17.9 | 17.9 | 19.5 | 19.2 |
| 9/24/2011 | 5 | N/A | 18.9 | 18.7 | 17.7 | 17.7 | 17.7 | 19.4 | 19.2 |
| 9/24/2011 | 6 | N/A | 18.9 | 18.5 | 17.6 | 17.6 | 17.5 | 19.4 | 19.1 |
| 9/24/2011 | 7 | N/A | 18.9 | 18.4 | 17.5 | 17.5 | 17.4 | 19.4 | 19.1 |
| 9/24/2011 | 8 | N/A | 18.9 | 18.4 | 17.4 | 17.4 | 17.3 | 19.4 | 19.0 |
| 9/24/2011 | 9 | N/A | 18.9 | 18.7 | 17.5 | 17.4 | 17.4 | 19.3 | 19.0 |
| 9/24/2011 | 10 | N/A | 19.1 | 19.1 | 17.8 | 17.5 | 17.6 | 19.3 | 18.9 |
| 9/24/2011 | 11 | N/A | 19.0 | 19.7 | 17.9 | 17.6 | 17.8 | 19.3 | 19.0 |
| 9/24/2011 | 12 | N/A | 19.1 | 19.8 | 18.2 | 17.9 | 18.2 | 19.2 | 19.0 |
| 9/24/2011 | 13 | N/A | 19.2 | 20.0 | 19.9 | 19.8 | 19.5 | 19.2 | 19.0 |
| 9/24/2011 | 14 | N/A | 19.2 | 20.1 | 20.1 | 20.1 | 20.2 | 19.3 | 19.1 |
| 9/24/2011 | 15 | N/A | 19.3 | 20.1 | 20.2 | 20.2 | 20.3 | 19.3 | 19.2 |
| 9/24/2011 | 16 | N/A | 19.4 | 19.9 | 20.2 | 20.1 | 20.2 | 19.4 | 19.2 |
| 9/24/2011 | 17 | N/A | 19.4 | 19.7 | 19.9 | 19.9 | 20.0 | 19.4 | 19.3 |
| 9/24/2011 | 18 | N/A | 19.4 | 19.6 | 19.7 | 19.7 | 19.8 | 19.5 | 19.4 |
| 9/24/2011 | 19 | N/A | 19.4 | 19.4 | 19.6 | 19.5 | 19.6 | 19.5 | 19.4 |
| 9/24/2011 | 20 | N/A | 19.4 | 19.3 | 19.4 | 19.3 | 19.4 | 19.6 | 19.4 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/24/2011 | 21 | N/A | 19.4 | 19.2 | 19.3 | 19.2 | 19.2 | 19.6 | 19.4 |
| 9/24/2011 | 22 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.2 | 19.6 | 19.4 |
| 9/24/2011 | 23 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.1 | 19.6 | 19.3 |
| 9/24/2011 | 24 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.1 | 19.6 | 19.3 |
| 9/25/2011 | 1 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.1 | 19.6 | 19.3 |
| 9/25/2011 | 2 | N/A | 19.4 | 19.1 | 19.2 | 19.1 | 19.1 | 19.5 | 19.3 |
| 9/25/2011 | 3 | N/A | 19.3 | 19.2 | 19.1 | 19.1 | 19.1 | 19.5 | 19.3 |
| 9/25/2011 | 4 | N/A | 19.2 | 19.2 | 19.1 | 19.1 | 19.1 | 19.5 | 19.2 |
| 9/25/2011 | 5 | N/A | 19.3 | 19.1 | 19.1 | 19.0 | 19.1 | 19.5 | 19.2 |
| 9/25/2011 | 6 | N/A | 19.2 | 19.1 | 19.0 | 19.0 | 19.0 | 19.4 | 19.2 |
| 9/25/2011 | 7 | N/A | 19.2 | 19.0 | 19.0 | 18.9 | 18.9 | 19.4 | 19.2 |
| 9/25/2011 | 8 | N/A | 19.2 | 19.0 | 19.0 | 18.9 | 18.9 | 19.4 | 19.2 |
| 9/25/2011 | 9 | N/A | 19.1 | 19.0 | 18.9 | 18.8 | 18.8 | 19.4 | 19.1 |
| 9/25/2011 | 10 | N/A | 19.1 | 19.0 | 18.8 | 18.8 | 18.8 | 19.3 | 19.1 |
| 9/25/2011 | 11 | N/A | 19.1 | 19.0 | 18.9 | 18.8 | 18.8 | 19.3 | 19.0 |
| 9/25/2011 | 12 | N/A | 19.1 | 19.0 | 18.9 | 18.9 | 18.9 | 19.3 | 19.0 |
| 9/25/2011 | 13 | N/A | 19.1 | 18.9 | 18.9 | 18.8 | 18.9 | 19.3 | 19.0 |
| 9/25/2011 | 14 | N/A | 19.2 | 19.3 | 19.0 | 18.9 | 19.0 | 19.3 | 19.1 |
| 9/25/2011 | 15 | N/A | 19.2 | 19.5 | 19.3 | 19.2 | 19.3 | 19.3 | 19.1 |
| 9/25/2011 | 16 | N/A | 19.2 | 19.3 | 19.5 | 19.4 | 19.4 | 19.3 | 19.1 |
| 9/25/2011 | 17 | N/A | 19.2 | 19.2 | 19.3 | 19.2 | 19.3 | 19.3 | 19.2 |
| 9/25/2011 | 18 | N/A | 19.2 | 19.0 | 19.0 | 19.0 | 19.0 | 19.3 | 19.1 |
| 9/25/2011 | 19 | N/A | 19.1 | 18.7 | 18.7 | 18.6 | 18.6 | 19.3 | 19.1 |
| 9/25/2011 | 20 | N/A | 19.1 | 18.5 | 18.3 | 18.3 | 18.3 | 19.3 | 19.1 |
| 9/25/2011 | 21 | N/A | 19.0 | 18.3 | 18.0 | 17.9 | 17.9 | 19.3 | 19.0 |
| 9/25/2011 | 22 | N/A | 19.0 | 18.2 | 17.9 | 17.8 | 17.7 | 19.2 | 18.9 |
| 9/25/2011 | 23 | N/A | 18.9 | 18.2 | 17.8 | 17.7 | 17.7 | 19.2 | 18.9 |
| 9/25/2011 | 24 | N/A | 18.8 | 18.3 | 17.8 | 17.7 | 17.6 | 19.1 | 18.8 |
| 9/26/2011 | 1 | N/A | 18.8 | 18.3 | 17.8 | 17.8 | 17.7 | 19.1 | 18.8 |
| 9/26/2011 | 2 | N/A | 18.7 | 18.2 | 17.9 | 17.8 | 17.8 | 19.0 | 18.8 |
| 9/26/2011 | 3 | N/A | 18.6 | 18.2 | 17.8 | 17.7 | 17.7 | 18.9 | 18.7 |
| 9/26/2011 | 4 | N/A | 18.6 | 18.2 | 17.7 | 17.7 | 17.6 | 18.9 | 18.6 |
| 9/26/2011 | 5 | N/A | 18.5 | 18.0 | 17.7 | 17.6 | 17.6 | 18.8 | 18.6 |
| 9/26/2011 | 6 | N/A | 18.4 | 18.0 | 17.6 | 17.5 | 17.5 | 18.8 | 18.5 |
| 9/26/2011 | 7 | N/A | 18.4 | 18.1 | 17.6 | 17.5 | 17.5 | 18.7 | 18.4 |
| 9/26/2011 | 8 | N/A | 18.3 | 18.1 | 17.7 | 17.6 | 17.6 | 18.7 | 18.4 |
| 9/26/2011 | 9 | N/A | 18.3 | 18.2 | 17.7 | 17.7 | 17.6 | 18.7 | 18.4 |
| 9/26/2011 | 10 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.6 | 18.3 |
| 9/26/2011 | 11 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.6 | 18.3 |
| 9/26/2011 | 12 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 13 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 14 | N/A | 18.2 | 18.3 | 17.9 | 17.8 | 17.8 | 18.5 | 18.3 |
| 9/26/2011 | 15 | N/A | 18.2 | 18.2 | 17.8 | 17.8 | 17.8 | 18.5 | 18.3 |
| 9/26/2011 | 16 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/26/2011 | 17 | N/A | 18.2 | 18.2 | 17.7 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 18 | N/A | 18.2 | 18.2 | 17.7 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 19 | N/A | 18.2 | 18.0 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 20 | N/A | 18.2 | 18.0 | 17.7 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 21 | N/A | 18.2 | 18.0 | 17.7 | 17.6 | 17.6 | 18.5 | 18.3 |
| 9/26/2011 | 22 | N/A | 18.2 | 18.0 | 17.6 | 17.5 | 17.5 | 18.5 | 18.2 |
| 9/26/2011 | 23 | N/A | 18.2 | 17.9 | 17.6 | 17.5 | 17.5 | 18.4 | 18.2 |
| 9/26/2011 | 24 | N/A | 18.1 | 17.8 | 17.5 | 17.4 | 17.4 | 18.4 | 18.2 |
| 9/27/2011 | 1 | N/A | 18.1 | 17.7 | 17.5 | 17.4 | 17.4 | 18.4 | 18.2 |
| 9/27/2011 | 2 | N/A | 18.1 | 17.7 | 17.4 | 17.3 | 17.3 | 18.4 | 18.2 |
| 9/27/2011 | 3 | N/A | 18.1 | 17.7 | 17.3 | 17.3 | 17.2 | 18.4 | 18.2 |
| 9/27/2011 | 4 | N/A | 18.1 | 17.7 | 17.3 | 17.2 | 17.2 | 18.4 | 18.1 |
| 9/27/2011 | 5 | N/A | 18.1 | 17.7 | 17.3 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 6 | N/A | 18.1 | 17.6 | 17.3 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 7 | N/A | 18.1 | 17.6 | 17.2 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 8 | N/A | 18.1 | 17.7 | 17.2 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 9 | N/A | 18.1 | 17.9 | 17.3 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 10 | N/A | 18.1 | 18.4 | 17.6 | 17.4 | 17.5 | 18.3 | 18.1 |
| 9/27/2011 | 11 | N/A | 18.1 | 18.8 | 17.7 | 17.5 | 17.7 | 18.3 | 18.1 |
| 9/27/2011 | 12 | N/A | 18.3 | 19.2 | 18.1 | 17.8 | 18.0 | 18.3 | 18.1 |
| 9/27/2011 | 13 | N/A | 18.3 | 19.6 | 18.4 | 18.2 | 18.3 | 18.3 | 18.2 |
| 9/27/2011 | 14 | N/A | 18.4 | 19.5 | 18.4 | 18.4 | 18.5 | 18.4 | 18.2 |
| 9/27/2011 | 15 | N/A | 18.3 | 19.7 | 18.7 | 18.7 | 18.6 | 18.4 | 18.2 |
| 9/27/2011 | 16 | N/A | 18.2 | 19.5 | 18.9 | 18.9 | 18.9 | 18.4 | 18.3 |
| 9/27/2011 | 17 | N/A | 18.2 | 19.1 | 18.9 | 18.9 | 18.8 | 18.4 | 18.3 |
| 9/27/2011 | 18 | N/A | 18.2 | 18.5 | 18.8 | 18.8 | 18.6 | 18.5 | 18.3 |
| 9/27/2011 | 19 | N/A | 18.2 | 18.2 | 18.5 | 18.5 | 18.3 | 18.5 | 18.3 |
| 9/27/2011 | 20 | N/A | 18.2 | 17.8 | 18.1 | 18.1 | 18.0 | 18.5 | 18.3 |
| 9/27/2011 | 21 | N/A | 18.1 | 17.5 | 17.7 | 17.6 | 17.7 | 18.5 | 18.2 |
| 9/27/2011 | 22 | N/A | 18.1 | 17.3 | 17.2 | 17.2 | 17.2 | 18.4 | 18.2 |
| 9/27/2011 | 23 | N/A | 18.0 | 17.2 | 16.9 | 16.9 | 16.9 | 18.4 | 18.1 |
| 9/27/2011 | 24 | N/A | 18.0 | 17.2 | 16.6 | 16.6 | 16.5 | 18.3 | 18.0 |
| 9/28/2011 | 1 | N/A | 17.9 | 17.1 | 16.4 | 16.4 | 16.3 | 18.2 | 18.0 |
| 9/28/2011 | 2 | N/A | 17.8 | 17.1 | 16.2 | 16.2 | 16.1 | 18.2 | 17.9 |
| 9/28/2011 | 3 | N/A | 17.8 | 17.1 | 16.2 | 16.1 | 16.0 | 18.1 | 17.9 |
| 9/28/2011 | 4 | N/A | 17.7 | 16.9 | 16.0 | 16.0 | 15.9 | 18.1 | 17.8 |
| 9/28/2011 | 5 | N/A | 17.7 | 16.9 | 16.0 | 15.9 | 15.8 | 18.0 | 17.8 |
| 9/28/2011 | 6 | N/A | 17.6 | 16.9 | 15.9 | 15.8 | 15.7 | 18.0 | 17.7 |
| 9/28/2011 | 7 | N/A | 17.6 | 16.8 | 15.8 | 15.8 | 15.6 | 18.0 | 17.7 |
| 9/28/2011 | 8 | N/A | 17.5 | 16.8 | 15.7 | 15.7 | 15.6 | 18.0 | 17.6 |
| 9/28/2011 | 9 | N/A | 17.5 | 17.0 | 15.9 | 15.7 | 15.7 | 18.0 | 17.6 |
| 9/28/2011 | 10 | N/A | 17.6 | 17.4 | 16.1 | 15.8 | 15.9 | 17.9 | 17.6 |
| 9/28/2011 | 11 | N/A | 17.7 | 17.9 | 16.2 | 15.9 | 16.2 | 17.9 | 17.6 |
| 9/28/2011 | 12 | N/A | 17.8 | 18.4 | 16.5 | 16.1 | 16.3 | 17.9 | 17.7 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/28/2011 | 13 | N/A | 17.9 | 18.9 | 16.7 | 16.5 | 16.6 | 17.9 | 17.7 |
| 9/28/2011 | 14 | N/A | 17.9 | 19.3 | 17.1 | 17.1 | 17.2 | 18.0 | 17.8 |
| 9/28/2011 | 15 | N/A | 17.9 | 19.4 | 17.6 | 17.7 | 17.7 | 18.0 | 17.9 |
| 9/28/2011 | 16 | N/A | 17.8 | 19.3 | 18.0 | 18.1 | 18.1 | 18.0 | 17.9 |
| 9/28/2011 | 17 | N/A | 17.9 | 18.9 | 18.4 | 18.4 | 18.3 | 18.1 | 18.0 |
| 9/28/2011 | 18 | N/A | 17.8 | 18.4 | 18.5 | 18.5 | 18.4 | 18.1 | 18.0 |
| 9/28/2011 | 19 | N/A | 17.8 | 18.0 | 18.3 | 18.3 | 18.3 | 18.1 | 18.0 |
| 9/28/2011 | 20 | N/A | 17.8 | 17.6 | 17.9 | 17.9 | 18.0 | 18.2 | 17.9 |
| 9/28/2011 | 21 | N/A | 17.7 | 17.4 | 17.5 | 17.5 | 17.6 | 18.2 | 17.9 |
| 9/28/2011 | 22 | N/A | 17.7 | 17.1 | 17.1 | 17.1 | 17.2 | 18.1 | 17.9 |
| 9/28/2011 | 23 | N/A | 17.7 | 17.0 | 16.7 | 16.7 | 16.7 | 18.1 | 17.9 |
| 9/28/2011 | 24 | N/A | 17.7 | 16.9 | 16.3 | 16.3 | 16.4 | 18.1 | 17.8 |
| 9/29/2011 | 1 | N/A | 17.6 | 16.8 | 16.1 | 16.1 | 16.1 | 18.0 | 17.8 |
| 9/29/2011 | 2 | N/A | 17.6 | 16.7 | 15.9 | 15.9 | 15.8 | 18.0 | 17.8 |
| 9/29/2011 | 3 | N/A | 17.6 | 16.7 | 15.8 | 15.7 | 15.7 | 18.0 | 17.7 |
| 9/29/2011 | 4 | N/A | 17.5 | 16.7 | 15.6 | 15.6 | 15.5 | 18.0 | 17.7 |
| 9/29/2011 | 5 | N/A | 17.5 | 16.6 | 15.6 | 15.5 | 15.4 | 17.9 | 17.7 |
| 9/29/2011 | 6 | N/A | 17.4 | 16.5 | 15.4 | 15.4 | 15.3 | 17.9 | 17.6 |
| 9/29/2011 | 7 | N/A | 17.3 | 16.4 | 15.4 | 15.3 | 15.2 | 17.9 | 17.6 |
| 9/29/2011 | 8 | N/A | 17.3 | 16.4 | 15.3 | 15.2 | 15.2 | 17.9 | 17.5 |
| 9/29/2011 | 9 | N/A | 17.3 | 16.7 | 15.5 | 15.3 | 15.2 | 17.9 | 17.5 |
| 9/29/2011 | 10 | N/A | 17.4 | 17.1 | 15.7 | 15.3 | 15.4 | 17.8 | 17.5 |
| 9/29/2011 | 11 | N/A | 17.6 | 17.7 | 15.7 | 15.4 | 15.6 | 17.8 | 17.5 |
| 9/29/2011 | 12 | N/A | 17.7 | 18.3 | 16.1 | 15.7 | 15.9 | 17.8 | 17.6 |
| 9/29/2011 | 13 | N/A | 17.8 | 18.9 | 16.5 | 16.2 | 16.3 | 17.8 | 17.6 |
| 9/29/2011 | 14 | N/A | 17.9 | 19.3 | 16.9 | 16.9 | 16.9 | 17.9 | 17.7 |
| 9/29/2011 | 15 | N/A | 17.9 | 19.4 | 17.5 | 17.6 | 17.6 | 17.9 | 17.8 |
| 9/29/2011 | 16 | N/A | 17.8 | 19.4 | 18.1 | 18.2 | 18.1 | 18.0 | 17.8 |
| 9/29/2011 | 17 | N/A | 17.8 | 19.0 | 18.6 | 18.5 | 18.4 | 18.0 | 17.9 |
| 9/29/2011 | 18 | N/A | 17.8 | 18.6 | 18.6 | 18.6 | 18.5 | 18.1 | 17.9 |
| 9/29/2011 | 19 | N/A | 17.8 | 18.2 | 18.4 | 18.4 | 18.4 | 18.1 | 17.9 |
| 9/29/2011 | 20 | N/A | 17.8 | 17.9 | 18.1 | 18.1 | 18.2 | 18.1 | 17.9 |
| 9/29/2011 | 21 | N/A | 17.8 | 17.6 | 17.7 | 17.7 | 17.8 | 18.1 | 17.9 |
| 9/29/2011 | 22 | N/A | 17.7 | 17.4 | 17.3 | 17.3 | 17.4 | 18.1 | 17.9 |
| 9/29/2011 | 23 | N/A | 17.7 | 17.2 | 16.9 | 16.9 | 17.0 | 18.1 | 17.9 |
| 9/29/2011 | 24 | N/A | 17.7 | 17.2 | 16.6 | 16.6 | 16.6 | 18.1 | 17.9 |
| 9/30/2011 | 1 | N/A | 17.7 | 17.1 | 16.4 | 16.3 | 16.3 | 18.0 | 17.8 |
| 9/30/2011 | 2 | N/A | 17.6 | 17.0 | 16.2 | 16.2 | 16.1 | 18.0 | 17.8 |
| 9/30/2011 | 3 | N/A | 17.6 | 16.9 | 16.0 | 16.0 | 15.9 | 18.0 | 17.7 |
| 9/30/2011 | 4 | N/A | 17.6 | 16.9 | 15.9 | 15.8 | 15.8 | 18.0 | 17.7 |
| 9/30/2011 | 5 | N/A | 17.5 | 16.8 | 15.7 | 15.7 | 15.7 | 18.0 | 17.7 |
| 9/30/2011 | 6 | N/A | 17.5 | 16.7 | 15.7 | 15.6 | 15.5 | 17.9 | 17.7 |
| 9/30/2011 | 7 | N/A | 17.5 | 16.6 | 15.6 | 15.5 | 15.4 | 17.9 | 17.6 |
| 9/30/2011 | 8 | N/A | 17.4 | 16.7 | 15.5 | 15.5 | 15.4 | 17.9 | 17.6 |

# 2011 Chelan River Temperature Hourly Data
# September Report

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/30/2011 | 9 | N/A | 17.5 | 16.9 | 15.7 | 15.5 | 15.5 | 17.9 | 17.6 |
| 9/30/2011 | 10 | N/A | 17.5 | 17.3 | 15.8 | 15.6 | 15.7 | 17.9 | 17.6 |
| 9/30/2011 | 11 | N/A | 17.7 | 17.9 | 16.1 | 15.7 | 15.9 | 17.9 | 17.6 |
| 9/30/2011 | 12 | N/A | 17.8 | 18.4 | 16.3 | 16.0 | 16.2 | 17.8 | 17.6 |
| 9/30/2011 | 13 | N/A | 17.9 | 19.0 | 16.9 | 16.5 | 16.7 | 17.9 | 17.7 |
| 9/30/2011 | 14 | N/A | 17.9 | 19.3 | 17.2 | 17.1 | 17.1 | 17.9 | 17.7 |
| 9/30/2011 | 15 | N/A | 18.0 | 19.5 | 17.8 | 17.8 | 17.8 | 18.0 | 17.8 |
| 9/30/2011 | 16 | N/A | 18.0 | 19.2 | 18.3 | 18.3 | 18.2 | 18.0 | 17.9 |
| 9/30/2011 | 17 | N/A | 18.0 | 18.9 | 18.6 | 18.6 | 18.5 | 18.0 | 18.0 |
| 9/30/2011 | 18 | N/A | 17.9 | 18.6 | 18.7 | 18.6 | 18.6 | 18.1 | 18.0 |
| 9/30/2011 | 19 | N/A | 17.9 | 18.3 | 18.4 | 18.4 | 18.4 | 18.1 | 18.0 |
| 9/30/2011 | 20 | N/A | 17.9 | 18.0 | 18.1 | 18.0 | 18.2 | 18.2 | 17.9 |
| 9/30/2011 | 21 | N/A | 17.8 | 17.9 | 17.7 | 17.7 | 17.8 | 18.2 | 17.9 |
| 9/30/2011 | 22 | N/A | 17.8 | 17.7 | 17.4 | 17.3 | 17.4 | 18.1 | 17.9 |
| 9/30/2011 | 23 | N/A | 17.8 | 17.7 | 17.1 | 17.1 | 17.1 | 18.1 | 17.8 |
| 9/30/2011 | 24 | N/A | 17.8 | 17.6 | 16.9 | 16.9 | 16.9 | 18.1 | 17.8 |

# 2011 Chelan River Daily Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|
| 7/1/2011 | 17.7 | 17.6 | 17.7 | 17.9 | 17.9 | 17.9 | 18.1 | 17.7 |
| 7/2/2011 | 17.4 | 17.4 | 17.6 | 17.8 | 17.8 | 17.7 | 17.9 | 17.5 |
| 7/3/2011 | 17.5 | 17.5 | 17.7 | 17.8 | 17.8 | 17.8 | 18.1 | 17.6 |
| 7/4/2011 | 17.9 | 17.8 | 17.9 | 18.1 | 18.1 | 18.1 | 18.3 | 17.9 |
| 7/5/2011 | 18.4 | 18.3 | 18.4 | 18.6 | 18.6 | 18.6 | 18.7 | 18.4 |
| 7/6/2011 | 19.0 | 18.9 | 19.0 | 19.2 | 19.2 | 19.2 | 19.2 | 19.0 |
| 7/7/2011 | 19.7 | 19.7 | 19.7 | 19.9 | 19.9 | 19.9 | 19.9 | 19.8 |
| 7/8/2011 | 19.3 | 19.1 | 19.1 | 19.3 | 19.3 | 19.2 | 19.5 | 19.2 |
| 7/9/2011 | 18.6 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.9 | 18.5 |
| 7/10/2011 | 18.4 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.4 |
| 7/11/2011 | 18.2 | 18.2 | 18.3 | 18.5 | 18.5 | 18.5 | 18.5 | 18.4 |
| 7/12/2011 | 18.7 | 18.6 | 18.7 | 18.9 | 18.8 | 18.8 | 19.0 | 18.7 |
| 7/13/2011 | 19.0 | 18.9 | 19.0 | 19.2 | 19.2 | 19.1 | 19.3 | 18.9 |
| 7/14/2011 | 18.9 | 18.7 | 18.8 | 19.0 | 19.0 | 18.9 | 19.1 | 18.8 |
| 7/15/2011 | 18.5 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.5 |
| 7/16/2011 | 18.6 | 18.5 | 18.6 | 18.8 | 18.8 | 18.8 | 18.8 | 18.6 |
| 7/17/2011 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.8 | 18.7 |
| 7/18/2011 | 18.8 | 18.7 | 18.9 | 19.1 | 19.1 | 19.0 | 19.0 | 18.8 |
| 7/19/2011 | 18.6 | 18.5 | 18.6 | 18.8 | 18.8 | 18.8 | 18.9 | 18.6 |
| 7/20/2011 | 18.5 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.7 | 18.5 |
| 7/21/2011 | 18.4 | 18.2 | 18.4 | 18.4 | 18.4 | 18.3 | 18.7 | 18.4 |
| 7/22/2011 | 18.0 | 18.1 | 18.6 | 18.3 | 18.3 | 18.3 | 18.4 | 18.2 |
| 7/23/2011 | N/A | 18.4 | 18.6 | 18.7 | 18.7 | 18.7 | 18.7 | 18.4 |
| 7/24/2011 | N/A | 18.8 | 19.1 | 19.3 | 19.3 | 19.2 | 19.1 | 18.8 |
| 7/25/2011 | N/A | 18.3 | 18.5 | 18.7 | 18.7 | 18.7 | 18.9 | 18.6 |
| 7/26/2011 | N/A | 18.7 | 18.8 | 19.3 | 19.3 | 19.4 | 19.2 | 18.9 |
| 7/27/2011 | N/A | 19.3 | 19.2 | 19.3 | 19.2 | 19.4 | 19.7 | 19.4 |
| 7/28/2011 | N/A | 19.7 | 19.6 | 19.6 | 19.5 | 19.6 | 20.0 | 19.7 |
| 7/29/2011 | N/A | 19.9 | 20.1 | 20.1 | 20.0 | 20.1 | 20.2 | 20.0 |
| 7/30/2011 | N/A | 20.0 | 20.2 | 20.3 | 20.2 | 20.2 | 20.4 | 20.2 |
| 7/31/2011 | N/A | 20.4 | 20.5 | 20.6 | 20.5 | 20.5 | 20.8 | 20.5 |
| 8/1/2011 | N/A | 20.3 | 20.4 | 20.5 | 20.5 | 20.5 | 20.6 | 20.4 |
| 8/2/2011 | N/A | 20.1 | 20.2 | 20.3 | 20.2 | 20.2 | 20.3 | 20.1 |
| 8/3/2011 | N/A | 20.2 | 20.6 | 20.8 | 20.7 | 20.7 | 20.6 | 20.5 |
| 8/4/2011 | N/A | 20.7 | 20.8 | 21.0 | 20.9 | 20.9 | 21.0 | 20.9 |
| 8/5/2011 | N/A | 21.2 | 21.2 | 21.4 | 21.3 | 21.3 | 21.5 | 21.3 |
| 8/6/2011 | N/A | 21.2 | 21.2 | 21.4 | 21.3 | 21.3 | 21.4 | 21.3 |
| 8/7/2011 | N/A | 21.1 | 21.1 | 21.3 | 21.2 | 21.2 | 21.3 | 21.2 |
| 8/8/2011 | N/A | 21.0 | 21.1 | 21.3 | 21.2 | 21.2 | 21.3 | 21.1 |
| 8/9/2011 | N/A | 21.0 | 20.9 | 21.0 | 21.0 | 21.0 | 21.3 | 21.1 |
| 8/10/2011 | N/A | 20.9 | 20.7 | 20.8 | 20.8 | 20.8 | 21.1 | 21.0 |
| 8/11/2011 | N/A | 20.7 | 20.6 | 20.8 | 20.7 | 20.7 | 20.9 | 20.8 |
| 8/12/2011 | N/A | 20.6 | 20.6 | 20.8 | 20.7 | 20.7 | 20.9 | 20.7 |
| 8/13/2011 | N/A | 20.1 | 20.4 | 20.6 | 20.5 | 20.5 | 20.8 | 20.5 |
| 8/14/2011 | N/A | 20.6 | 20.4 | 20.4 | 20.3 | 20.3 | 21.0 | 20.7 |

# 2011 Chelan River Daily Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|
| 8/15/2011 | N/A | 20.5 | 20.4 | 20.4 | 20.3 | 20.3 | 21.0 | 20.6 |
| 8/16/2011 | N/A | 20.5 | 20.5 | 20.4 | 20.3 | 20.3 | 21.0 | 20.7 |
| 8/17/2011 | N/A | 20.6 | 20.5 | 20.5 | 20.4 | 20.4 | 21.2 | 20.8 |
| 8/18/2011 | N/A | 20.6 | 20.5 | 20.6 | 20.5 | 20.5 | 21.0 | 20.7 |
| 8/19/2011 | N/A | 20.8 | 20.6 | 20.4 | 20.3 | 20.4 | 21.1 | 20.9 |
| 8/20/2011 | N/A | 20.8 | 20.9 | 20.9 | 20.7 | 20.8 | 21.2 | 21.0 |
| 8/21/2011 | N/A | 20.3 | 20.7 | 20.8 | 20.6 | 20.7 | 21.0 | 20.7 |
| 8/22/2011 | N/A | 20.5 | 20.4 | 20.3 | 20.1 | 20.2 | 21.1 | 20.9 |
| 8/23/2011 | N/A | 20.9 | 20.9 | 20.8 | 20.7 | 20.7 | 21.2 | 21.0 |
| 8/24/2011 | N/A | 21.1 | 21.1 | 21.1 | 21.0 | 21.0 | 21.4 | 21.2 |
| 8/25/2011 | N/A | 21.4 | 21.3 | 21.5 | 21.4 | 21.5 | 21.7 | 21.5 |
| 8/26/2011 | N/A | 21.7 | 21.4 | 21.6 | 21.5 | 21.6 | 22.0 | 21.8 |
| 8/27/2011 | N/A | 21.5 | 21.4 | 21.6 | 21.5 | 21.6 | 22.0 | 21.9 |
| 8/28/2011 | N/A | 21.0 | 21.1 | 21.0 | 20.9 | 21.0 | 21.9 | 21.7 |
| 8/29/2011 | N/A | 21.6 | 21.2 | 21.2 | 21.1 | 21.2 | 22.3 | 22.1 |
| 8/30/2011 | N/A | 21.7 | 21.1 | 20.7 | 20.7 | 20.6 | 22.1 | 21.8 |
| 8/31/2011 | N/A | 21.3 | 20.7 | 20.0 | 19.9 | 19.8 | 21.7 | 21.4 |
| 9/1/2011 | N/A | 21.1 | 20.5 | 19.9 | 19.8 | 19.8 | 21.4 | 21.1 |
| 9/2/2011 | N/A | 20.9 | 20.3 | 19.8 | 19.8 | 19.8 | 21.1 | 20.9 |
| 9/3/2011 | N/A | 20.2 | 20.0 | 19.6 | 19.6 | 19.6 | 20.6 | 20.4 |
| 9/4/2011 | N/A | 20.1 | 19.8 | 19.2 | 19.1 | 19.2 | 20.8 | 20.5 |
| 9/5/2011 | N/A | 20.0 | 20.0 | 19.6 | 19.5 | 19.6 | 21.0 | 20.2 |
| 9/6/2011 | N/A | 20.1 | 20.2 | 19.8 | 19.7 | 19.8 | 20.7 | 20.3 |
| 9/7/2011 | N/A | 20.3 | 20.1 | 19.7 | 19.6 | 19.7 | 20.7 | 20.6 |
| 9/8/2011 | N/A | 20.6 | 20.5 | 20.1 | 20.0 | 20.1 | 20.9 | 20.8 |
| 9/9/2011 | N/A | 20.4 | 20.6 | 20.4 | 20.3 | 20.4 | 20.9 | 20.7 |
| 9/10/2011 | N/A | 20.4 | 20.6 | 20.2 | 20.2 | 20.3 | 21.0 | 20.8 |
| 9/11/2011 | N/A | 20.5 | 20.3 | 20.0 | 19.9 | 20.0 | 21.0 | 20.9 |
| 9/12/2011 | N/A | 20.7 | 20.7 | 20.8 | 20.7 | 20.8 | 21.2 | 21.0 |
| 9/13/2011 | N/A | 21.2 | 20.6 | 20.3 | 20.2 | 20.3 | 21.5 | 21.3 |
| 9/14/2011 | N/A | 21.1 | 20.5 | 20.2 | 20.1 | 20.1 | 21.3 | 21.1 |
| 9/15/2011 | N/A | 20.9 | 19.9 | 19.5 | 19.4 | 19.3 | 21.2 | 20.8 |
| 9/16/2011 | N/A | 20.4 | 19.4 | 18.7 | 18.6 | 18.5 | 20.8 | 20.4 |
| 9/17/2011 | N/A | 19.8 | 18.8 | 17.9 | 17.8 | 17.7 | 20.3 | 19.7 |
| 9/18/2011 | N/A | 19.5 | 19.4 | 18.6 | 18.5 | 18.5 | 20.3 | 19.7 |
| 9/19/2011 | N/A | 19.4 | 19.5 | 18.8 | 18.7 | 18.8 | 19.8 | 19.4 |
| 9/20/2011 | N/A | 19.1 | 19.2 | 18.3 | 18.2 | 18.2 | 19.6 | 19.1 |
| 9/21/2011 | N/A | 18.9 | 19.2 | 18.0 | 17.9 | 17.9 | 19.3 | 18.9 |
| 9/22/2011 | N/A | 18.8 | 19.4 | 18.0 | 18.0 | 18.0 | 19.1 | 18.8 |
| 9/23/2011 | N/A | 18.9 | 19.9 | 19.0 | 18.9 | 19.1 | 19.1 | 18.9 |
| 9/24/2011 | N/A | 19.2 | 19.2 | 18.8 | 18.7 | 18.7 | 19.4 | 19.2 |
| 9/25/2011 | N/A | 19.1 | 18.9 | 18.8 | 18.7 | 18.8 | 19.3 | 19.1 |
| 9/26/2011 | N/A | 18.3 | 18.1 | 17.7 | 17.7 | 17.6 | 18.6 | 18.4 |
| 9/27/2011 | N/A | 18.1 | 18.2 | 17.8 | 17.7 | 17.7 | 18.4 | 18.2 |
| 9/28/2011 | N/A | 17.8 | 17.7 | 16.8 | 16.7 | 16.7 | 18.1 | 17.8 |

# 2011 Chelan River Daily Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|
| 9/29/2011 | N/A | 17.6 | 17.6 | 16.6 | 16.6 | 16.6 | 18.0 | 17.7 |
| 9/30/2011 | N/A | 17.7 | 17.8 | 16.8 | 16.7 | 16.8 | 18.0 | 17.8 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/1/2011 | 1 | 17.7 | 17.6 | 17.5 | 17.7 | 17.7 | 17.6 | 18.3 | 17.7 |
| 7/1/2011 | 2 | 17.6 | 17.6 | 17.5 | 17.7 | 17.7 | 17.6 | 18.3 | 17.7 |
| 7/1/2011 | 3 | 17.6 | 17.5 | 17.4 | 17.7 | 17.6 | 17.5 | 18.3 | 17.6 |
| 7/1/2011 | 4 | 17.5 | 17.4 | 17.4 | 17.6 | 17.6 | 17.5 | 18.2 | 17.6 |
| 7/1/2011 | 5 | 17.4 | 17.3 | 17.3 | 17.5 | 17.5 | 17.4 | 18.2 | 17.6 |
| 7/1/2011 | 6 | 17.3 | 17.2 | 17.2 | 17.4 | 17.4 | 17.4 | 18.2 | 17.6 |
| 7/1/2011 | 7 | 17.3 | 17.2 | 17.2 | 17.4 | 17.4 | 17.3 | 18.1 | 17.3 |
| 7/1/2011 | 8 | 17.3 | 17.2 | 17.3 | 17.5 | 17.4 | 17.4 | 17.7 | 17.3 |
| 7/1/2011 | 9 | 17.3 | 17.3 | 17.4 | 17.6 | 17.5 | 17.5 | 17.8 | 17.4 |
| 7/1/2011 | 10 | 17.4 | 17.3 | 17.6 | 17.7 | 17.7 | 17.7 | 17.9 | 17.4 |
| 7/1/2011 | 11 | 17.4 | 17.4 | 17.7 | 17.9 | 17.9 | 17.9 | 17.9 | 17.5 |
| 7/1/2011 | 12 | 17.5 | 17.6 | 17.9 | 18.1 | 18.0 | 18.1 | 18.0 | 17.6 |
| 7/1/2011 | 13 | 17.7 | 17.7 | 18.0 | 18.2 | 18.2 | 18.2 | 18.1 | 17.7 |
| 7/1/2011 | 14 | 17.8 | 17.8 | 18.1 | 18.3 | 18.3 | 18.3 | 18.2 | 17.8 |
| 7/1/2011 | 15 | 17.9 | 17.9 | 18.2 | 18.4 | 18.4 | 18.4 | 18.3 | 18.0 |
| 7/1/2011 | 16 | 18.0 | 18.0 | 18.2 | 18.4 | 18.4 | 18.4 | 18.3 | 18.0 |
| 7/1/2011 | 17 | 18.0 | 18.0 | 18.2 | 18.4 | 18.4 | 18.4 | 18.3 | 18.1 |
| 7/1/2011 | 18 | 18.1 | 18.0 | 18.1 | 18.3 | 18.3 | 18.3 | 18.3 | 18.1 |
| 7/1/2011 | 19 | 18.1 | 18.0 | 18.1 | 18.3 | 18.3 | 18.2 | 18.3 | 18.1 |
| 7/1/2011 | 20 | 18.0 | 18.0 | 18.0 | 18.2 | 18.2 | 18.2 | 18.2 | 18.1 |
| 7/1/2011 | 21 | 18.0 | 17.9 | 17.9 | 18.1 | 18.1 | 18.1 | 18.2 | 18.0 |
| 7/1/2011 | 22 | 17.9 | 17.8 | 17.8 | 18.1 | 18.1 | 18.0 | 18.2 | 17.9 |
| 7/1/2011 | 23 | 17.8 | 17.7 | 17.7 | 18.0 | 18.0 | 17.9 | 18.2 | 17.8 |
| 7/1/2011 | 24 | 17.7 | 17.7 | 17.7 | 17.9 | 17.9 | 17.8 | 18.1 | 17.7 |
| 7/2/2011 | 1 | 17.6 | 17.6 | 17.7 | 17.9 | 17.9 | 17.8 | 18.1 | 17.7 |
| 7/2/2011 | 2 | 17.6 | 17.5 | 17.6 | 17.8 | 17.8 | 17.7 | 18.0 | 17.7 |
| 7/2/2011 | 3 | 17.5 | 17.5 | 17.6 | 17.8 | 17.7 | 17.7 | 18.0 | 17.6 |
| 7/2/2011 | 4 | 17.5 | 17.4 | 17.5 | 17.7 | 17.7 | 17.6 | 17.9 | 17.5 |
| 7/2/2011 | 5 | 17.4 | 17.3 | 17.4 | 17.6 | 17.6 | 17.5 | 17.8 | 17.4 |
| 7/2/2011 | 6 | 17.3 | 17.3 | 17.3 | 17.5 | 17.5 | 17.5 | 17.8 | 17.4 |
| 7/2/2011 | 7 | 17.3 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 17.7 | 17.3 |
| 7/2/2011 | 8 | 17.2 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 17.7 | 17.2 |
| 7/2/2011 | 9 | 17.2 | 17.2 | 17.4 | 17.6 | 17.6 | 17.5 | 17.8 | 17.2 |
| 7/2/2011 | 10 | 17.2 | 17.2 | 17.5 | 17.7 | 17.6 | 17.6 | 17.8 | 17.2 |
| 7/2/2011 | 11 | 17.2 | 17.2 | 17.5 | 17.7 | 17.7 | 17.7 | 17.9 | 17.3 |
| 7/2/2011 | 12 | 17.3 | 17.3 | 17.6 | 17.8 | 17.8 | 17.8 | 17.9 | 17.4 |
| 7/2/2011 | 13 | 17.4 | 17.4 | 17.7 | 18.0 | 18.0 | 18.0 | 18.0 | 17.5 |
| 7/2/2011 | 14 | 17.5 | 17.5 | 17.8 | 18.1 | 18.1 | 18.1 | 18.1 | 17.6 |
| 7/2/2011 | 15 | 17.6 | 17.6 | 17.9 | 18.1 | 18.1 | 18.1 | 18.1 | 17.7 |
| 7/2/2011 | 16 | 17.7 | 17.7 | 18.0 | 18.2 | 18.2 | 18.2 | 18.1 | 17.8 |
| 7/2/2011 | 17 | 17.7 | 17.7 | 18.0 | 18.2 | 18.2 | 18.2 | 18.1 | 17.8 |
| 7/2/2011 | 18 | 17.7 | 17.6 | 17.9 | 18.1 | 18.1 | 18.1 | 18.0 | 17.7 |
| 7/2/2011 | 19 | 17.6 | 17.5 | 17.7 | 18.0 | 18.0 | 17.9 | 18.0 | 17.6 |
| 7/2/2011 | 20 | 17.5 | 17.3 | 17.5 | 17.8 | 17.8 | 17.7 | 17.9 | 17.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/2/2011 | 21 | 17.4 | 17.3 | 17.4 | 17.6 | 17.6 | 17.6 | 17.8 | 17.4 |
| 7/2/2011 | 22 | 17.4 | 17.3 | 17.3 | 17.5 | 17.5 | 17.5 | 17.8 | 17.3 |
| 7/2/2011 | 23 | 17.3 | 17.2 | 17.3 | 17.5 | 17.5 | 17.5 | 17.7 | 17.3 |
| 7/2/2011 | 24 | 17.3 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 17.7 | 17.3 |
| 7/3/2011 | 1 | 17.3 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 17.7 | 17.3 |
| 7/3/2011 | 2 | 17.2 | 17.2 | 17.2 | 17.4 | 17.4 | 17.4 | 17.8 | 17.3 |
| 7/3/2011 | 3 | 17.2 | 17.2 | 17.2 | 17.4 | 17.4 | 17.3 | 17.8 | 17.2 |
| 7/3/2011 | 4 | 17.2 | 17.2 | 17.2 | 17.4 | 17.4 | 17.3 | 17.9 | 17.3 |
| 7/3/2011 | 5 | 17.2 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 17.9 | 17.3 |
| 7/3/2011 | 6 | 17.2 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 17.9 | 17.3 |
| 7/3/2011 | 7 | 17.3 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 18.0 | 17.3 |
| 7/3/2011 | 8 | 17.3 | 17.2 | 17.3 | 17.5 | 17.5 | 17.4 | 18.0 | 17.4 |
| 7/3/2011 | 9 | 17.3 | 17.3 | 17.4 | 17.6 | 17.6 | 17.6 | 18.1 | 17.5 |
| 7/3/2011 | 10 | 17.4 | 17.4 | 17.6 | 17.8 | 17.7 | 17.7 | 18.1 | 17.4 |
| 7/3/2011 | 11 | 17.4 | 17.4 | 17.7 | 17.9 | 17.9 | 17.9 | 18.1 | 17.5 |
| 7/3/2011 | 12 | 17.5 | 17.5 | 17.8 | 18.0 | 18.0 | 18.0 | 18.1 | 17.6 |
| 7/3/2011 | 13 | 17.6 | 17.6 | 17.9 | 18.1 | 18.1 | 18.1 | 18.1 | 17.7 |
| 7/3/2011 | 14 | 17.7 | 17.7 | 18.0 | 18.2 | 18.2 | 18.2 | 18.1 | 17.8 |
| 7/3/2011 | 15 | 17.7 | 17.8 | 18.1 | 18.3 | 18.3 | 18.3 | 18.1 | 17.8 |
| 7/3/2011 | 16 | 17.8 | 17.8 | 18.1 | 18.3 | 18.3 | 18.3 | 18.1 | 17.9 |
| 7/3/2011 | 17 | 17.8 | 17.8 | 18.0 | 18.2 | 18.2 | 18.2 | 18.2 | 17.9 |
| 7/3/2011 | 18 | 17.9 | 17.8 | 17.9 | 18.1 | 18.1 | 18.1 | 18.2 | 17.9 |
| 7/3/2011 | 19 | 17.9 | 17.9 | 17.9 | 18.1 | 18.1 | 18.0 | 18.2 | 17.9 |
| 7/3/2011 | 20 | 17.9 | 17.9 | 17.9 | 18.1 | 18.1 | 18.0 | 18.2 | 18.0 |
| 7/3/2011 | 21 | 17.9 | 17.8 | 17.9 | 18.1 | 18.1 | 18.0 | 18.3 | 17.9 |
| 7/3/2011 | 22 | 17.9 | 17.8 | 17.8 | 18.0 | 18.0 | 17.9 | 18.2 | 17.9 |
| 7/3/2011 | 23 | 17.9 | 17.8 | 17.8 | 18.0 | 18.0 | 17.9 | 18.2 | 17.9 |
| 7/3/2011 | 24 | 17.8 | 17.8 | 17.7 | 17.9 | 17.9 | 17.8 | 18.2 | 17.9 |
| 7/4/2011 | 1 | 17.8 | 17.7 | 17.7 | 17.9 | 17.8 | 17.8 | 18.1 | 17.8 |
| 7/4/2011 | 2 | 17.7 | 17.6 | 17.6 | 17.8 | 17.8 | 17.7 | 18.1 | 17.7 |
| 7/4/2011 | 3 | 17.6 | 17.5 | 17.5 | 17.7 | 17.7 | 17.6 | 18.0 | 17.7 |
| 7/4/2011 | 4 | 17.6 | 17.5 | 17.5 | 17.7 | 17.7 | 17.6 | 18.0 | 17.6 |
| 7/4/2011 | 5 | 17.6 | 17.5 | 17.4 | 17.6 | 17.6 | 17.5 | 18.0 | 17.6 |
| 7/4/2011 | 6 | 17.5 | 17.4 | 17.4 | 17.6 | 17.6 | 17.5 | 18.0 | 17.5 |
| 7/4/2011 | 7 | 17.5 | 17.4 | 17.4 | 17.6 | 17.6 | 17.5 | 18.0 | 17.5 |
| 7/4/2011 | 8 | 17.5 | 17.4 | 17.4 | 17.6 | 17.6 | 17.5 | 18.0 | 17.5 |
| 7/4/2011 | 9 | 17.5 | 17.4 | 17.5 | 17.7 | 17.7 | 17.6 | 18.1 | 17.5 |
| 7/4/2011 | 10 | 17.5 | 17.5 | 17.7 | 17.8 | 17.8 | 17.8 | 18.1 | 17.6 |
| 7/4/2011 | 11 | 17.6 | 17.6 | 17.8 | 18.0 | 18.0 | 17.9 | 18.1 | 17.7 |
| 7/4/2011 | 12 | 17.7 | 17.7 | 17.9 | 18.1 | 18.1 | 18.1 | 18.2 | 17.7 |
| 7/4/2011 | 13 | 17.8 | 17.8 | 18.1 | 18.3 | 18.3 | 18.3 | 18.2 | 17.9 |
| 7/4/2011 | 14 | 17.9 | 18.0 | 18.2 | 18.4 | 18.4 | 18.4 | 18.3 | 18.0 |
| 7/4/2011 | 15 | 18.1 | 18.1 | 18.4 | 18.6 | 18.6 | 18.6 | 18.3 | 18.2 |
| 7/4/2011 | 16 | 18.2 | 18.2 | 18.4 | 18.7 | 18.7 | 18.7 | 18.4 | 18.3 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/4/2011 | 17 | 18.3 | 18.2 | 18.5 | 18.7 | 18.7 | 18.7 | 18.4 | 18.3 |
| 7/4/2011 | 18 | 18.3 | 18.3 | 18.4 | 18.6 | 18.7 | 18.6 | 18.5 | 18.3 |
| 7/4/2011 | 19 | 18.3 | 18.3 | 18.3 | 18.6 | 18.6 | 18.5 | 18.5 | 18.3 |
| 7/4/2011 | 20 | 18.3 | 18.2 | 18.3 | 18.5 | 18.5 | 18.4 | 18.6 | 18.3 |
| 7/4/2011 | 21 | 18.2 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 18.6 | 18.3 |
| 7/4/2011 | 22 | 18.2 | 18.1 | 18.1 | 18.3 | 18.3 | 18.3 | 18.7 | 18.2 |
| 7/4/2011 | 23 | 18.2 | 18.1 | 18.1 | 18.3 | 18.3 | 18.2 | 18.7 | 18.2 |
| 7/4/2011 | 24 | 18.1 | 18.1 | 18.0 | 18.2 | 18.2 | 18.2 | 18.7 | 18.2 |
| 7/5/2011 | 1 | 18.1 | 18.0 | 18.0 | 18.2 | 18.2 | 18.1 | 18.8 | 18.1 |
| 7/5/2011 | 2 | 18.1 | 18.0 | 17.9 | 18.1 | 18.1 | 18.1 | 18.7 | 18.1 |
| 7/5/2011 | 3 | 18.1 | 18.0 | 17.9 | 18.1 | 18.1 | 18.0 | 18.7 | 18.1 |
| 7/5/2011 | 4 | 18.0 | 17.9 | 17.9 | 18.1 | 18.1 | 18.0 | 18.6 | 18.0 |
| 7/5/2011 | 5 | 18.0 | 17.9 | 17.8 | 18.0 | 18.0 | 17.9 | 18.6 | 18.0 |
| 7/5/2011 | 6 | 17.9 | 17.8 | 17.8 | 18.0 | 18.0 | 17.9 | 18.5 | 17.9 |
| 7/5/2011 | 7 | 17.8 | 17.8 | 17.8 | 18.0 | 17.9 | 17.9 | 18.5 | 17.9 |
| 7/5/2011 | 8 | 17.8 | 17.8 | 17.9 | 18.0 | 18.0 | 17.9 | 18.4 | 17.9 |
| 7/5/2011 | 9 | 17.8 | 17.8 | 18.0 | 18.2 | 18.1 | 18.1 | 18.3 | 17.9 |
| 7/5/2011 | 10 | 17.9 | 17.9 | 18.2 | 18.3 | 18.3 | 18.3 | 18.3 | 18.0 |
| 7/5/2011 | 11 | 18.0 | 18.0 | 18.3 | 18.5 | 18.5 | 18.5 | 18.3 | 18.1 |
| 7/5/2011 | 12 | 18.1 | 18.2 | 18.5 | 18.7 | 18.7 | 18.7 | 18.5 | 18.2 |
| 7/5/2011 | 13 | 18.3 | 18.3 | 18.7 | 18.9 | 18.8 | 18.9 | 18.6 | 18.3 |
| 7/5/2011 | 14 | 18.4 | 18.4 | 18.8 | 19.0 | 19.0 | 19.0 | 18.7 | 18.5 |
| 7/5/2011 | 15 | 18.5 | 18.5 | 18.9 | 19.1 | 19.1 | 19.2 | 18.8 | 18.6 |
| 7/5/2011 | 16 | 18.6 | 18.7 | 19.0 | 19.2 | 19.2 | 19.2 | 18.9 | 18.7 |
| 7/5/2011 | 17 | 18.8 | 18.8 | 19.0 | 19.2 | 19.2 | 19.2 | 19.0 | 18.8 |
| 7/5/2011 | 18 | 18.9 | 19.0 | 19.0 | 19.2 | 19.2 | 19.2 | 19.1 | 18.9 |
| 7/5/2011 | 19 | 19.0 | 19.0 | 18.9 | 19.2 | 19.2 | 19.1 | 19.2 | 19.0 |
| 7/5/2011 | 20 | 19.1 | 19.0 | 18.9 | 19.1 | 19.1 | 19.1 | 19.1 | 19.0 |
| 7/5/2011 | 21 | 19.1 | 18.9 | 18.8 | 19.0 | 19.0 | 19.0 | 19.1 | 19.0 |
| 7/5/2011 | 22 | 18.9 | 18.8 | 18.7 | 19.0 | 19.0 | 18.9 | 19.1 | 18.9 |
| 7/5/2011 | 23 | 18.8 | 18.7 | 18.7 | 18.9 | 18.9 | 18.9 | 19.1 | 18.8 |
| 7/5/2011 | 24 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.8 | 19.0 | 18.7 |
| 7/6/2011 | 1 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 19.0 | 18.7 |
| 7/6/2011 | 2 | 18.7 | 18.7 | 18.5 | 18.7 | 18.7 | 18.7 | 19.0 | 18.7 |
| 7/6/2011 | 3 | 18.7 | 18.7 | 18.5 | 18.7 | 18.7 | 18.7 | 19.0 | 18.7 |
| 7/6/2011 | 4 | 18.7 | 18.7 | 18.6 | 18.7 | 18.7 | 18.7 | 19.0 | 18.8 |
| 7/6/2011 | 5 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 19.0 | 18.7 |
| 7/6/2011 | 6 | 18.6 | 18.6 | 18.6 | 18.7 | 18.7 | 18.7 | 19.0 | 18.7 |
| 7/6/2011 | 7 | 18.6 | 18.6 | 18.6 | 18.8 | 18.7 | 18.7 | 18.9 | 18.7 |
| 7/6/2011 | 8 | 18.6 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.9 | 18.7 |
| 7/6/2011 | 9 | 18.7 | 18.7 | 18.8 | 19.0 | 19.0 | 18.9 | 18.9 | 18.7 |
| 7/6/2011 | 10 | 18.7 | 18.7 | 18.9 | 19.1 | 19.1 | 19.1 | 18.9 | 18.7 |
| 7/6/2011 | 11 | 18.7 | 18.7 | 19.0 | 19.2 | 19.2 | 19.2 | 19.0 | 18.7 |
| 7/6/2011 | 12 | 18.8 | 18.7 | 19.1 | 19.3 | 19.3 | 19.4 | 19.1 | 18.8 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/6/2011 | 13 | 18.8 | 18.8 | 19.2 | 19.4 | 19.4 | 19.5 | 19.1 | 18.9 |
| 7/6/2011 | 14 | 18.9 | 18.9 | 19.3 | 19.6 | 19.6 | 19.6 | 19.2 | 18.9 |
| 7/6/2011 | 15 | 19.0 | 19.1 | 19.4 | 19.7 | 19.7 | 19.7 | 19.3 | 19.1 |
| 7/6/2011 | 16 | 19.1 | 19.2 | 19.5 | 19.7 | 19.7 | 19.7 | 19.4 | 19.2 |
| 7/6/2011 | 17 | 19.3 | 19.3 | 19.5 | 19.7 | 19.7 | 19.7 | 19.4 | 19.3 |
| 7/6/2011 | 18 | 19.4 | 19.4 | 19.4 | 19.6 | 19.6 | 19.6 | 19.5 | 19.4 |
| 7/6/2011 | 19 | 19.5 | 19.4 | 19.3 | 19.6 | 19.6 | 19.5 | 19.5 | 19.4 |
| 7/6/2011 | 20 | 19.5 | 19.4 | 19.3 | 19.5 | 19.5 | 19.5 | 19.5 | 19.4 |
| 7/6/2011 | 21 | 19.4 | 19.3 | 19.2 | 19.5 | 19.5 | 19.4 | 19.4 | 19.3 |
| 7/6/2011 | 22 | 19.3 | 19.2 | 19.1 | 19.4 | 19.4 | 19.3 | 19.4 | 19.2 |
| 7/6/2011 | 23 | 19.2 | 19.1 | 19.0 | 19.2 | 19.2 | 19.2 | 19.4 | 19.1 |
| 7/6/2011 | 24 | 19.2 | 19.1 | 18.8 | 19.1 | 19.1 | 19.0 | 19.3 | 19.0 |
| 7/7/2011 | 1 | 19.2 | 19.1 | 18.7 | 19.0 | 19.0 | 18.9 | 19.3 | 19.0 |
| 7/7/2011 | 2 | 19.3 | 19.2 | 18.8 | 19.0 | 19.0 | 18.9 | 19.3 | 19.1 |
| 7/7/2011 | 3 | 19.3 | 19.3 | 18.9 | 19.1 | 19.1 | 19.0 | 19.5 | 19.2 |
| 7/7/2011 | 4 | 19.3 | 19.2 | 19.0 | 19.2 | 19.2 | 19.1 | 19.7 | 19.2 |
| 7/7/2011 | 5 | 19.3 | 19.2 | 19.1 | 19.2 | 19.2 | 19.2 | 19.8 | 19.1 |
| 7/7/2011 | 6 | 19.3 | 19.3 | 19.1 | 19.2 | 19.2 | 19.1 | 19.7 | 19.2 |
| 7/7/2011 | 7 | 19.5 | 19.4 | 19.3 | 19.4 | 19.4 | 19.3 | 19.6 | 19.4 |
| 7/7/2011 | 8 | 19.4 | 19.4 | 19.3 | 19.5 | 19.5 | 19.4 | 19.6 | 19.4 |
| 7/7/2011 | 9 | 19.5 | 19.6 | 19.6 | 19.7 | 19.7 | 19.6 | 19.6 | 19.6 |
| 7/7/2011 | 10 | 19.6 | 19.7 | 19.8 | 20.0 | 20.0 | 19.9 | 19.8 | 19.7 |
| 7/7/2011 | 11 | 19.7 | 19.8 | 20.1 | 20.2 | 20.2 | 20.2 | 19.8 | 19.8 |
| 7/7/2011 | 12 | 19.8 | 19.9 | 20.2 | 20.4 | 20.4 | 20.4 | 19.9 | 19.9 |
| 7/7/2011 | 13 | 19.8 | 20.0 | 20.4 | 20.6 | 20.6 | 20.6 | 20.0 | 20.1 |
| 7/7/2011 | 14 | 19.8 | 20.2 | 20.5 | 20.7 | 20.7 | 20.7 | 20.1 | 20.3 |
| 7/7/2011 | 15 | 19.9 | 20.3 | 20.6 | 20.8 | 20.8 | 20.8 | 20.2 | 20.3 |
| 7/7/2011 | 16 | 19.9 | 20.4 | 20.4 | 20.7 | 20.7 | 20.7 | 20.3 | 20.4 |
| 7/7/2011 | 17 | 20.0 | 20.3 | 20.5 | 20.7 | 20.7 | 20.6 | 20.4 | 20.4 |
| 7/7/2011 | 18 | 20.1 | 20.2 | 20.3 | 20.5 | 20.5 | 20.5 | 20.4 | 20.3 |
| 7/7/2011 | 19 | 20.1 | 20.2 | 20.1 | 20.3 | 20.3 | 20.2 | 20.4 | 20.2 |
| 7/7/2011 | 20 | 20.2 | 20.0 | 20.0 | 20.2 | 20.2 | 20.1 | 20.3 | 20.1 |
| 7/7/2011 | 21 | 20.2 | 20.0 | 19.8 | 20.0 | 20.0 | 19.9 | 20.3 | 20.0 |
| 7/7/2011 | 22 | 20.1 | 19.8 | 19.7 | 19.9 | 19.9 | 19.8 | 20.2 | 19.9 |
| 7/7/2011 | 23 | 20.1 | 19.7 | 19.7 | 19.8 | 19.8 | 19.7 | 20.2 | 19.8 |
| 7/7/2011 | 24 | 19.9 | 19.6 | 19.5 | 19.7 | 19.7 | 19.6 | 20.1 | 19.7 |
| 7/8/2011 | 1 | 19.9 | 19.5 | 19.3 | 19.6 | 19.5 | 19.4 | 20.1 | 19.5 |
| 7/8/2011 | 2 | 19.8 | 19.5 | 19.3 | 19.5 | 19.4 | 19.3 | 20.2 | 19.5 |
| 7/8/2011 | 3 | 19.7 | 19.4 | 19.2 | 19.4 | 19.4 | 19.3 | 20.3 | 19.5 |
| 7/8/2011 | 4 | 19.6 | 19.3 | 19.2 | 19.4 | 19.3 | 19.2 | 20.2 | 19.4 |
| 7/8/2011 | 5 | 19.6 | 19.2 | 19.1 | 19.3 | 19.3 | 19.2 | 20.1 | 19.4 |
| 7/8/2011 | 6 | 19.5 | 19.2 | 19.0 | 19.2 | 19.2 | 19.1 | 19.9 | 19.3 |
| 7/8/2011 | 7 | 19.4 | 19.0 | 18.9 | 19.2 | 19.1 | 19.0 | 19.7 | 19.2 |
| 7/8/2011 | 8 | 19.3 | 18.9 | 18.9 | 19.1 | 19.1 | 19.0 | 19.4 | 19.0 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/8/2011 | 9 | 19.3 | 18.9 | 19.0 | 19.1 | 19.1 | 19.0 | 19.1 | 19.0 |
| 7/8/2011 | 10 | 19.2 | 18.9 | 19.0 | 19.2 | 19.2 | 19.1 | 19.2 | 19.0 |
| 7/8/2011 | 11 | 19.1 | 18.9 | 19.2 | 19.3 | 19.3 | 19.2 | 19.2 | 19.0 |
| 7/8/2011 | 12 | 19.1 | 19.0 | 19.2 | 19.4 | 19.4 | 19.4 | 19.2 | 19.0 |
| 7/8/2011 | 13 | 19.1 | 19.1 | 19.3 | 19.5 | 19.5 | 19.5 | 19.3 | 19.1 |
| 7/8/2011 | 14 | 19.2 | 19.1 | 19.3 | 19.5 | 19.5 | 19.5 | 19.3 | 19.2 |
| 7/8/2011 | 15 | 19.3 | 19.2 | 19.4 | 19.5 | 19.6 | 19.5 | 19.3 | 19.2 |
| 7/8/2011 | 16 | 19.3 | 19.2 | 19.4 | 19.6 | 19.6 | 19.6 | 19.4 | 19.3 |
| 7/8/2011 | 17 | 19.3 | 19.2 | 19.4 | 19.5 | 19.5 | 19.5 | 19.4 | 19.3 |
| 7/8/2011 | 18 | 19.3 | 19.2 | 19.3 | 19.5 | 19.5 | 19.4 | 19.4 | 19.3 |
| 7/8/2011 | 19 | 19.3 | 19.2 | 19.2 | 19.3 | 19.3 | 19.2 | 19.3 | 19.2 |
| 7/8/2011 | 20 | 19.3 | 19.1 | 19.1 | 19.2 | 19.2 | 19.2 | 19.3 | 19.2 |
| 7/8/2011 | 21 | 19.3 | 19.0 | 19.0 | 19.2 | 19.2 | 19.1 | 19.3 | 19.1 |
| 7/8/2011 | 22 | 19.2 | 18.9 | 18.9 | 19.1 | 19.1 | 19.0 | 19.2 | 19.0 |
| 7/8/2011 | 23 | 19.1 | 18.7 | 18.7 | 18.9 | 18.9 | 18.8 | 19.2 | 18.9 |
| 7/8/2011 | 24 | 19.0 | 18.6 | 18.5 | 18.7 | 18.7 | 18.6 | 19.2 | 18.8 |
| 7/9/2011 | 1 | 19.0 | 18.5 | 18.4 | 18.6 | 18.6 | 18.5 | 19.2 | 18.6 |
| 7/9/2011 | 2 | 18.8 | 18.5 | 18.4 | 18.5 | 18.5 | 18.4 | 19.3 | 18.6 |
| 7/9/2011 | 3 | 18.7 | 18.4 | 18.3 | 18.5 | 18.4 | 18.3 | 19.3 | 18.6 |
| 7/9/2011 | 4 | 18.7 | 18.3 | 18.2 | 18.4 | 18.4 | 18.3 | 19.3 | 18.5 |
| 7/9/2011 | 5 | 18.6 | 18.3 | 18.2 | 18.3 | 18.3 | 18.2 | 19.2 | 18.5 |
| 7/9/2011 | 6 | 18.5 | 18.2 | 18.1 | 18.3 | 18.3 | 18.2 | 19.2 | 18.4 |
| 7/9/2011 | 7 | 18.5 | 18.1 | 18.1 | 18.2 | 18.2 | 18.2 | 19.1 | 18.4 |
| 7/9/2011 | 8 | 18.4 | 18.1 | 18.2 | 18.3 | 18.3 | 18.2 | 19.1 | 18.4 |
| 7/9/2011 | 9 | 18.4 | 18.1 | 18.2 | 18.4 | 18.4 | 18.3 | 18.7 | 18.2 |
| 7/9/2011 | 10 | 18.3 | 18.2 | 18.4 | 18.5 | 18.5 | 18.5 | 18.4 | 18.3 |
| 7/9/2011 | 11 | 18.3 | 18.3 | 18.5 | 18.7 | 18.7 | 18.7 | 18.5 | 18.4 |
| 7/9/2011 | 12 | 18.3 | 18.4 | 18.7 | 18.8 | 18.8 | 18.8 | 18.5 | 18.5 |
| 7/9/2011 | 13 | 18.4 | 18.5 | 18.7 | 18.9 | 18.9 | 18.9 | 18.6 | 18.5 |
| 7/9/2011 | 14 | 18.4 | 18.5 | 18.8 | 19.0 | 19.0 | 19.0 | 18.7 | 18.6 |
| 7/9/2011 | 15 | 18.5 | 18.6 | 18.9 | 19.1 | 19.1 | 19.1 | 18.7 | 18.7 |
| 7/9/2011 | 16 | 18.6 | 18.7 | 18.9 | 19.1 | 19.1 | 19.1 | 18.8 | 18.7 |
| 7/9/2011 | 17 | 18.6 | 18.7 | 18.9 | 19.1 | 19.1 | 19.1 | 18.9 | 18.7 |
| 7/9/2011 | 18 | 18.6 | 18.7 | 18.8 | 19.0 | 19.0 | 19.0 | 18.9 | 18.7 |
| 7/9/2011 | 19 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.9 | 18.7 |
| 7/9/2011 | 20 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/9/2011 | 21 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/9/2011 | 22 | 18.7 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 18.9 | 18.6 |
| 7/9/2011 | 23 | 18.6 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.9 | 18.6 |
| 7/9/2011 | 24 | 18.6 | 18.4 | 18.4 | 18.5 | 18.5 | 18.5 | 18.9 | 18.5 |
| 7/10/2011 | 1 | 18.6 | 18.4 | 18.3 | 18.5 | 18.5 | 18.4 | 18.9 | 18.4 |
| 7/10/2011 | 2 | 18.5 | 18.3 | 18.2 | 18.4 | 18.4 | 18.3 | 19.1 | 18.4 |
| 7/10/2011 | 3 | 18.5 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 19.2 | 18.4 |
| 7/10/2011 | 4 | 18.4 | 18.2 | 18.2 | 18.3 | 18.3 | 18.2 | 19.1 | 18.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/10/2011 | 5 | 18.4 | 18.1 | 18.1 | 18.3 | 18.3 | 18.2 | 19.0 | 18.3 |
| 7/10/2011 | 6 | 18.3 | 18.1 | 18.1 | 18.2 | 18.2 | 18.2 | 19.0 | 18.3 |
| 7/10/2011 | 7 | 18.3 | 18.1 | 18.1 | 18.2 | 18.2 | 18.1 | 18.9 | 18.3 |
| 7/10/2011 | 8 | 18.2 | 18.0 | 18.1 | 18.2 | 18.2 | 18.2 | 18.6 | 18.2 |
| 7/10/2011 | 9 | 18.2 | 18.1 | 18.2 | 18.4 | 18.3 | 18.3 | 18.3 | 18.2 |
| 7/10/2011 | 10 | 18.2 | 18.1 | 18.3 | 18.4 | 18.4 | 18.4 | 18.3 | 18.2 |
| 7/10/2011 | 11 | 18.2 | 18.1 | 18.4 | 18.6 | 18.6 | 18.5 | 18.4 | 18.2 |
| 7/10/2011 | 12 | 18.2 | 18.2 | 18.4 | 18.6 | 18.6 | 18.6 | 18.4 | 18.3 |
| 7/10/2011 | 13 | 18.3 | 18.3 | 18.6 | 18.8 | 18.8 | 18.8 | 18.5 | 18.3 |
| 7/10/2011 | 14 | 18.3 | 18.4 | 18.7 | 18.9 | 18.9 | 18.9 | 18.5 | 18.4 |
| 7/10/2011 | 15 | 18.3 | 18.4 | 18.7 | 18.9 | 18.9 | 18.9 | 18.6 | 18.5 |
| 7/10/2011 | 16 | 18.4 | 18.4 | 18.6 | 18.8 | 18.8 | 18.7 | 18.6 | 18.5 |
| 7/10/2011 | 17 | 18.4 | 18.4 | 18.7 | 18.8 | 18.8 | 18.8 | 18.6 | 18.5 |
| 7/10/2011 | 18 | 18.4 | 18.5 | 18.7 | 18.8 | 18.8 | 18.8 | 18.6 | 18.6 |
| 7/10/2011 | 19 | 18.5 | 18.5 | 18.6 | 18.8 | 18.8 | 18.8 | 18.6 | 18.6 |
| 7/10/2011 | 20 | 18.5 | 18.5 | 18.6 | 18.8 | 18.8 | 18.7 | 18.6 | 18.6 |
| 7/10/2011 | 21 | 18.5 | 18.5 | 18.5 | 18.7 | 18.7 | 18.7 | 18.6 | 18.5 |
| 7/10/2011 | 22 | 18.5 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.6 | 18.5 |
| 7/10/2011 | 23 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.6 | 18.6 | 18.5 |
| 7/10/2011 | 24 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.6 | 18.5 |
| 7/11/2011 | 1 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.6 | 18.5 |
| 7/11/2011 | 2 | 18.5 | 18.3 | 18.3 | 18.5 | 18.5 | 18.5 | 18.5 | 18.4 |
| 7/11/2011 | 3 | 18.4 | 18.1 | 18.2 | 18.4 | 18.4 | 18.4 | 18.4 | 18.2 |
| 7/11/2011 | 4 | 18.4 | 17.9 | 18.0 | 18.2 | 18.2 | 18.2 | 18.3 | 18.0 |
| 7/11/2011 | 5 | 18.2 | 17.7 | 17.8 | 18.0 | 18.0 | 18.0 | 18.2 | 17.9 |
| 7/11/2011 | 6 | 18.1 | 17.6 | 17.7 | 17.9 | 17.9 | 17.8 | 18.1 | 17.8 |
| 7/11/2011 | 7 | 17.9 | 17.5 | 17.6 | 17.8 | 17.8 | 17.7 | 18.0 | 17.7 |
| 7/11/2011 | 8 | 17.8 | 17.4 | 17.6 | 17.7 | 17.7 | 17.7 | 17.9 | 17.6 |
| 7/11/2011 | 9 | 17.7 | 17.4 | 17.6 | 17.8 | 17.7 | 17.7 | 17.9 | 17.6 |
| 7/11/2011 | 10 | 17.7 | 17.5 | 17.7 | 17.9 | 17.9 | 17.8 | 18.0 | 17.7 |
| 7/11/2011 | 11 | 17.8 | 17.7 | 17.8 | 18.0 | 17.9 | 17.9 | 18.1 | 17.9 |
| 7/11/2011 | 12 | 17.9 | 17.8 | 18.0 | 18.2 | 18.2 | 18.1 | 18.3 | 18.1 |
| 7/11/2011 | 13 | 17.9 | 18.1 | 18.2 | 18.4 | 18.3 | 18.3 | 18.4 | 18.3 |
| 7/11/2011 | 14 | 18.1 | 18.3 | 18.5 | 18.6 | 18.6 | 18.6 | 18.6 | 18.5 |
| 7/11/2011 | 15 | 18.1 | 18.5 | 18.7 | 18.8 | 18.8 | 18.8 | 18.7 | 18.7 |
| 7/11/2011 | 16 | 18.2 | 18.7 | 18.9 | 19.1 | 19.1 | 19.1 | 18.9 | 18.8 |
| 7/11/2011 | 17 | 18.3 | 18.8 | 19.0 | 19.2 | 19.2 | 19.2 | 18.9 | 19.0 |
| 7/11/2011 | 18 | 18.4 | 18.9 | 18.9 | 19.2 | 19.2 | 19.1 | 18.9 | 19.0 |
| 7/11/2011 | 19 | 18.5 | 18.9 | 19.0 | 19.2 | 19.2 | 19.1 | 18.9 | 19.0 |
| 7/11/2011 | 20 | 18.6 | 18.9 | 18.9 | 19.2 | 19.2 | 19.1 | 18.9 | 19.0 |
| 7/11/2011 | 21 | 18.7 | 18.7 | 18.8 | 19.1 | 19.1 | 19.0 | 18.9 | 18.9 |
| 7/11/2011 | 22 | 18.8 | 18.7 | 18.7 | 18.9 | 18.9 | 18.9 | 18.9 | 18.8 |
| 7/11/2011 | 23 | 18.8 | 18.5 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/11/2011 | 24 | 18.8 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 19.0 | 18.6 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/12/2011 | 1 | 18.8 | 18.5 | 18.4 | 18.6 | 18.6 | 18.5 | 19.1 | 18.6 |
| 7/12/2011 | 2 | 18.7 | 18.5 | 18.4 | 18.6 | 18.6 | 18.5 | 19.2 | 18.6 |
| 7/12/2011 | 3 | 18.7 | 18.5 | 18.4 | 18.6 | 18.6 | 18.5 | 19.4 | 18.6 |
| 7/12/2011 | 4 | 18.7 | 18.6 | 18.4 | 18.6 | 18.6 | 18.5 | 19.3 | 18.6 |
| 7/12/2011 | 5 | 18.6 | 18.6 | 18.5 | 18.7 | 18.7 | 18.6 | 19.2 | 18.6 |
| 7/12/2011 | 6 | 18.6 | 18.6 | 18.5 | 18.7 | 18.7 | 18.6 | 19.1 | 18.6 |
| 7/12/2011 | 7 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 18.9 | 18.6 |
| 7/12/2011 | 8 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 18.7 | 18.6 |
| 7/12/2011 | 9 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.7 | 18.7 | 18.6 |
| 7/12/2011 | 10 | 18.6 | 18.5 | 18.7 | 18.8 | 18.8 | 18.8 | 18.8 | 18.6 |
| 7/12/2011 | 11 | 18.6 | 18.5 | 18.7 | 19.0 | 19.0 | 19.0 | 18.8 | 18.5 |
| 7/12/2011 | 12 | 18.6 | 18.5 | 18.9 | 19.1 | 19.1 | 19.1 | 18.8 | 18.6 |
| 7/12/2011 | 13 | 18.6 | 18.6 | 18.8 | 18.9 | 18.9 | 18.9 | 18.9 | 18.7 |
| 7/12/2011 | 14 | 18.7 | 18.7 | 18.8 | 19.0 | 19.0 | 19.0 | 18.9 | 18.7 |
| 7/12/2011 | 15 | 18.7 | 18.7 | 18.9 | 19.1 | 19.1 | 19.1 | 18.9 | 18.8 |
| 7/12/2011 | 16 | 18.8 | 18.7 | 18.8 | 19.0 | 19.0 | 19.0 | 19.0 | 18.8 |
| 7/12/2011 | 17 | 18.8 | 18.7 | 18.8 | 19.0 | 19.0 | 19.0 | 19.0 | 18.8 |
| 7/12/2011 | 18 | 18.8 | 18.7 | 18.8 | 19.1 | 19.1 | 19.0 | 19.0 | 18.8 |
| 7/12/2011 | 19 | 18.8 | 18.7 | 18.8 | 19.1 | 19.1 | 19.0 | 19.0 | 18.8 |
| 7/12/2011 | 20 | 18.8 | 18.7 | 18.8 | 19.0 | 19.0 | 18.9 | 19.0 | 18.8 |
| 7/12/2011 | 21 | 18.8 | 18.7 | 18.7 | 19.0 | 19.0 | 18.9 | 19.0 | 18.8 |
| 7/12/2011 | 22 | 18.8 | 18.7 | 18.7 | 18.9 | 18.9 | 18.8 | 19.0 | 18.8 |
| 7/12/2011 | 23 | 18.8 | 18.7 | 18.7 | 18.9 | 18.9 | 18.8 | 19.0 | 18.8 |
| 7/12/2011 | 24 | 18.8 | 18.7 | 18.7 | 18.9 | 18.9 | 18.8 | 19.0 | 18.8 |
| 7/13/2011 | 1 | 18.8 | 18.7 | 18.7 | 18.8 | 18.8 | 18.8 | 19.2 | 18.7 |
| 7/13/2011 | 2 | 18.8 | 18.7 | 18.7 | 18.8 | 18.8 | 18.7 | 19.5 | 18.7 |
| 7/13/2011 | 3 | 18.8 | 18.7 | 18.6 | 18.8 | 18.8 | 18.7 | 19.5 | 18.7 |
| 7/13/2011 | 4 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 19.4 | 18.7 |
| 7/13/2011 | 5 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 19.4 | 18.6 |
| 7/13/2011 | 6 | 18.7 | 18.6 | 18.6 | 18.7 | 18.7 | 18.7 | 19.3 | 18.6 |
| 7/13/2011 | 7 | 18.7 | 18.6 | 18.6 | 18.8 | 18.7 | 18.7 | 19.2 | 18.6 |
| 7/13/2011 | 8 | 18.7 | 18.6 | 18.7 | 18.8 | 18.8 | 18.8 | 19.1 | 18.7 |
| 7/13/2011 | 9 | 18.7 | 18.6 | 18.8 | 18.9 | 18.9 | 18.9 | 19.0 | 18.7 |
| 7/13/2011 | 10 | 18.7 | 18.7 | 18.9 | 19.1 | 19.0 | 19.0 | 18.9 | 18.7 |
| 7/13/2011 | 11 | 18.8 | 18.7 | 19.0 | 19.2 | 19.2 | 19.2 | 19.0 | 18.8 |
| 7/13/2011 | 12 | 18.8 | 18.8 | 19.1 | 19.2 | 19.2 | 19.2 | 19.0 | 18.9 |
| 7/13/2011 | 13 | 18.9 | 18.9 | 19.2 | 19.4 | 19.4 | 19.4 | 19.1 | 19.0 |
| 7/13/2011 | 14 | 19.0 | 19.0 | 19.3 | 19.5 | 19.5 | 19.5 | 19.2 | 19.1 |
| 7/13/2011 | 15 | 19.1 | 19.1 | 19.3 | 19.5 | 19.5 | 19.6 | 19.2 | 19.2 |
| 7/13/2011 | 16 | 19.2 | 19.2 | 19.4 | 19.6 | 19.6 | 19.6 | 19.3 | 19.2 |
| 7/13/2011 | 17 | 19.3 | 19.2 | 19.4 | 19.6 | 19.6 | 19.6 | 19.4 | 19.3 |
| 7/13/2011 | 18 | 19.3 | 19.3 | 19.4 | 19.6 | 19.6 | 19.5 | 19.5 | 19.4 |
| 7/13/2011 | 19 | 19.4 | 19.2 | 19.3 | 19.5 | 19.5 | 19.4 | 19.5 | 19.3 |
| 7/13/2011 | 20 | 19.3 | 19.2 | 19.2 | 19.4 | 19.4 | 19.3 | 19.5 | 19.3 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/13/2011 | 21 | 19.3 | 19.2 | 19.1 | 19.3 | 19.3 | 19.2 | 19.5 | 19.2 |
| 7/13/2011 | 22 | 19.2 | 19.1 | 19.1 | 19.2 | 19.2 | 19.2 | 19.4 | 19.2 |
| 7/13/2011 | 23 | 19.2 | 19.0 | 19.0 | 19.2 | 19.2 | 19.1 | 19.4 | 19.1 |
| 7/13/2011 | 24 | 19.1 | 18.9 | 18.9 | 19.1 | 19.1 | 19.0 | 19.4 | 19.0 |
| 7/14/2011 | 1 | 19.0 | 18.9 | 18.8 | 19.0 | 19.0 | 18.9 | 19.4 | 19.0 |
| 7/14/2011 | 2 | 19.0 | 18.8 | 18.8 | 19.0 | 19.0 | 18.9 | 19.5 | 18.9 |
| 7/14/2011 | 3 | 18.9 | 18.8 | 18.8 | 18.9 | 18.9 | 18.8 | 19.6 | 18.9 |
| 7/14/2011 | 4 | 18.9 | 18.8 | 18.7 | 18.9 | 18.9 | 18.8 | 19.6 | 18.8 |
| 7/14/2011 | 5 | 18.9 | 18.7 | 18.7 | 18.9 | 18.8 | 18.8 | 19.5 | 18.8 |
| 7/14/2011 | 6 | 18.8 | 18.7 | 18.6 | 18.8 | 18.8 | 18.7 | 19.4 | 18.7 |
| 7/14/2011 | 7 | 18.8 | 18.6 | 18.7 | 18.8 | 18.8 | 18.7 | 19.3 | 18.7 |
| 7/14/2011 | 8 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 19.0 | 18.7 |
| 7/14/2011 | 9 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/14/2011 | 10 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.9 | 18.7 |
| 7/14/2011 | 11 | 18.7 | 18.7 | 18.8 | 19.0 | 19.0 | 18.9 | 19.0 | 18.7 |
| 7/14/2011 | 12 | 18.8 | 18.7 | 18.8 | 19.0 | 19.0 | 19.0 | 19.0 | 18.8 |
| 7/14/2011 | 13 | 18.8 | 18.8 | 19.2 | 19.3 | 19.3 | 19.2 | 19.0 | 18.9 |
| 7/14/2011 | 14 | 18.9 | 18.9 | 19.1 | 19.3 | 19.3 | 19.2 | 19.1 | 19.0 |
| 7/14/2011 | 15 | 19.0 | 18.9 | 19.2 | 19.3 | 19.3 | 19.2 | 19.1 | 19.0 |
| 7/14/2011 | 16 | 19.0 | 18.9 | 19.1 | 19.2 | 19.2 | 19.1 | 19.2 | 19.0 |
| 7/14/2011 | 17 | 19.0 | 18.9 | 19.1 | 19.3 | 19.3 | 19.3 | 19.1 | 19.0 |
| 7/14/2011 | 18 | 19.0 | 18.9 | 19.0 | 19.2 | 19.2 | 19.2 | 19.1 | 18.9 |
| 7/14/2011 | 19 | 19.0 | 18.8 | 18.9 | 19.1 | 19.1 | 19.0 | 19.0 | 18.9 |
| 7/14/2011 | 20 | 18.9 | 18.7 | 18.7 | 18.9 | 18.9 | 18.8 | 19.0 | 18.8 |
| 7/14/2011 | 21 | 18.8 | 18.7 | 18.7 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/14/2011 | 22 | 18.7 | 18.6 | 18.6 | 18.7 | 18.7 | 18.7 | 18.8 | 18.7 |
| 7/14/2011 | 23 | 18.7 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.6 |
| 7/14/2011 | 24 | 18.6 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.5 |
| 7/15/2011 | 1 | 18.5 | 18.3 | 18.3 | 18.5 | 18.5 | 18.4 | 18.9 | 18.4 |
| 7/15/2011 | 2 | 18.4 | 18.2 | 18.3 | 18.4 | 18.4 | 18.4 | 19.2 | 18.4 |
| 7/15/2011 | 3 | 18.4 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 19.2 | 18.4 |
| 7/15/2011 | 4 | 18.3 | 18.2 | 18.1 | 18.3 | 18.3 | 18.2 | 19.0 | 18.3 |
| 7/15/2011 | 5 | 18.3 | 18.1 | 18.1 | 18.2 | 18.2 | 18.2 | 18.7 | 18.2 |
| 7/15/2011 | 6 | 18.2 | 18.1 | 18.1 | 18.2 | 18.2 | 18.1 | 18.4 | 18.2 |
| 7/15/2011 | 7 | 18.2 | 18.1 | 18.1 | 18.2 | 18.2 | 18.2 | 18.4 | 18.2 |
| 7/15/2011 | 8 | 18.2 | 18.1 | 18.2 | 18.3 | 18.3 | 18.2 | 18.5 | 18.2 |
| 7/15/2011 | 9 | 18.2 | 18.1 | 18.3 | 18.4 | 18.4 | 18.4 | 18.5 | 18.2 |
| 7/15/2011 | 10 | 18.2 | 18.1 | 18.4 | 18.5 | 18.5 | 18.5 | 18.5 | 18.2 |
| 7/15/2011 | 11 | 18.3 | 18.2 | 18.5 | 18.7 | 18.7 | 18.7 | 18.6 | 18.3 |
| 7/15/2011 | 12 | 18.3 | 18.3 | 18.6 | 18.8 | 18.8 | 18.8 | 18.6 | 18.4 |
| 7/15/2011 | 13 | 18.4 | 18.4 | 18.7 | 19.0 | 19.0 | 19.0 | 18.6 | 18.5 |
| 7/15/2011 | 14 | 18.5 | 18.5 | 18.8 | 19.1 | 19.1 | 19.1 | 18.7 | 18.6 |
| 7/15/2011 | 15 | 18.6 | 18.6 | 18.9 | 19.1 | 19.1 | 19.2 | 18.7 | 18.7 |
| 7/15/2011 | 16 | 18.7 | 18.6 | 18.9 | 19.1 | 19.1 | 19.1 | 18.7 | 18.7 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/15/2011 | 17 | 18.7 | 18.6 | 18.7 | 19.0 | 18.9 | 18.9 | 18.8 | 18.7 |
| 7/15/2011 | 18 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.9 | 18.8 | 18.7 |
| 7/15/2011 | 19 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.9 | 18.8 | 18.7 |
| 7/15/2011 | 20 | 18.7 | 18.7 | 18.7 | 18.9 | 18.9 | 18.8 | 18.9 | 18.7 |
| 7/15/2011 | 21 | 18.7 | 18.7 | 18.7 | 18.9 | 18.9 | 18.8 | 18.9 | 18.7 |
| 7/15/2011 | 22 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.9 | 18.7 |
| 7/15/2011 | 23 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.8 | 18.9 | 18.7 |
| 7/15/2011 | 24 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/16/2011 | 1 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/16/2011 | 2 | 18.6 | 18.5 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.6 |
| 7/16/2011 | 3 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.7 | 18.9 | 18.6 |
| 7/16/2011 | 4 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.7 | 18.9 | 18.6 |
| 7/16/2011 | 5 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 18.9 | 18.5 |
| 7/16/2011 | 6 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 18.9 | 18.5 |
| 7/16/2011 | 7 | 18.5 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.9 | 18.5 |
| 7/16/2011 | 8 | 18.5 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.5 |
| 7/16/2011 | 9 | 18.5 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.5 |
| 7/16/2011 | 10 | 18.5 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.5 |
| 7/16/2011 | 11 | 18.5 | 18.5 | 18.6 | 18.8 | 18.8 | 18.8 | 18.8 | 18.5 |
| 7/16/2011 | 12 | 18.6 | 18.5 | 18.7 | 19.0 | 19.0 | 18.9 | 18.8 | 18.6 |
| 7/16/2011 | 13 | 18.6 | 18.5 | 18.8 | 19.0 | 19.0 | 19.0 | 18.8 | 18.6 |
| 7/16/2011 | 14 | 18.6 | 18.5 | 18.6 | 18.9 | 18.8 | 18.8 | 18.8 | 18.6 |
| 7/16/2011 | 15 | 18.6 | 18.5 | 18.7 | 18.9 | 18.9 | 18.8 | 18.8 | 18.6 |
| 7/16/2011 | 16 | 18.6 | 18.6 | 18.8 | 19.0 | 19.0 | 19.1 | 18.8 | 18.6 |
| 7/16/2011 | 17 | 18.7 | 18.6 | 18.8 | 19.0 | 19.1 | 19.1 | 18.8 | 18.7 |
| 7/16/2011 | 18 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.9 | 18.8 | 18.7 |
| 7/16/2011 | 19 | 18.7 | 18.6 | 18.7 | 19.0 | 19.0 | 18.9 | 18.8 | 18.7 |
| 7/16/2011 | 20 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.9 | 18.7 |
| 7/16/2011 | 21 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.8 | 18.9 | 18.7 |
| 7/16/2011 | 22 | 18.7 | 18.5 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.6 |
| 7/16/2011 | 23 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.7 | 18.8 | 18.6 |
| 7/16/2011 | 24 | 18.6 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.5 |
| 7/17/2011 | 1 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.6 | 18.8 | 18.5 |
| 7/17/2011 | 2 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.5 |
| 7/17/2011 | 3 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.5 |
| 7/17/2011 | 4 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.5 |
| 7/17/2011 | 5 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.5 | 18.7 | 18.4 |
| 7/17/2011 | 6 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.4 | 18.7 | 18.4 |
| 7/17/2011 | 7 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.4 | 18.7 | 18.4 |
| 7/17/2011 | 8 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.4 | 18.7 | 18.4 |
| 7/17/2011 | 9 | 18.4 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.4 |
| 7/17/2011 | 10 | 18.4 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.4 |
| 7/17/2011 | 11 | 18.4 | 18.4 | 18.6 | 18.8 | 18.8 | 18.7 | 18.8 | 18.4 |
| 7/17/2011 | 12 | 18.5 | 18.5 | 18.7 | 18.8 | 18.8 | 18.8 | 18.8 | 18.5 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/17/2011 | 13 | 18.6 | 18.6 | 18.8 | 19.0 | 19.0 | 19.0 | 18.8 | 18.7 |
| 7/17/2011 | 14 | 18.7 | 18.7 | 18.8 | 19.1 | 19.1 | 19.1 | 18.8 | 18.7 |
| 7/17/2011 | 15 | 18.8 | 18.8 | 19.0 | 19.2 | 19.2 | 19.2 | 18.9 | 18.9 |
| 7/17/2011 | 16 | 18.9 | 18.9 | 19.0 | 19.2 | 19.2 | 19.2 | 18.9 | 19.0 |
| 7/17/2011 | 17 | 19.0 | 18.9 | 19.0 | 19.2 | 19.2 | 19.2 | 18.9 | 19.0 |
| 7/17/2011 | 18 | 19.0 | 18.9 | 19.0 | 19.2 | 19.2 | 19.2 | 19.0 | 19.0 |
| 7/17/2011 | 19 | 19.0 | 18.9 | 18.9 | 19.2 | 19.2 | 19.1 | 19.0 | 19.0 |
| 7/17/2011 | 20 | 19.0 | 18.9 | 18.9 | 19.1 | 19.1 | 19.1 | 19.0 | 19.0 |
| 7/17/2011 | 21 | 19.0 | 18.8 | 18.9 | 19.1 | 19.1 | 19.0 | 19.1 | 18.9 |
| 7/17/2011 | 22 | 18.9 | 18.8 | 18.8 | 19.1 | 19.0 | 19.0 | 19.1 | 18.9 |
| 7/17/2011 | 23 | 18.9 | 18.7 | 18.8 | 19.0 | 19.0 | 19.0 | 19.0 | 18.8 |
| 7/17/2011 | 24 | 18.8 | 18.7 | 18.8 | 19.0 | 19.0 | 18.9 | 19.0 | 18.8 |
| 7/18/2011 | 1 | 18.8 | 18.7 | 18.7 | 19.0 | 19.0 | 18.9 | 19.0 | 18.8 |
| 7/18/2011 | 2 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.9 | 18.9 | 18.7 |
| 7/18/2011 | 3 | 18.7 | 18.6 | 18.7 | 18.9 | 18.8 | 18.8 | 18.9 | 18.7 |
| 7/18/2011 | 4 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/18/2011 | 5 | 18.7 | 18.5 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/18/2011 | 6 | 18.6 | 18.5 | 18.6 | 18.8 | 18.7 | 18.7 | 18.8 | 18.6 |
| 7/18/2011 | 7 | 18.6 | 18.5 | 18.6 | 18.8 | 18.7 | 18.7 | 18.8 | 18.6 |
| 7/18/2011 | 8 | 18.6 | 18.5 | 18.6 | 18.7 | 18.7 | 18.7 | 18.9 | 18.6 |
| 7/18/2011 | 9 | 18.6 | 18.5 | 18.6 | 18.8 | 18.8 | 18.8 | 18.9 | 18.6 |
| 7/18/2011 | 10 | 18.6 | 18.5 | 18.7 | 18.8 | 18.8 | 18.8 | 18.9 | 18.6 |
| 7/18/2011 | 11 | 18.6 | 18.5 | 18.7 | 18.9 | 18.9 | 18.9 | 18.9 | 18.6 |
| 7/18/2011 | 12 | 18.6 | 18.5 | 18.8 | 19.0 | 19.0 | 19.0 | 18.9 | 18.6 |
| 7/18/2011 | 13 | 18.6 | 18.7 | 19.0 | 19.2 | 19.2 | 19.2 | 18.9 | 18.7 |
| 7/18/2011 | 14 | 18.8 | 18.8 | 19.1 | 19.3 | 19.3 | 19.3 | 18.9 | 18.8 |
| 7/18/2011 | 15 | 18.9 | 18.9 | 19.2 | 19.4 | 19.4 | 19.4 | 19.0 | 18.9 |
| 7/18/2011 | 16 | 19.0 | 19.0 | 19.1 | 19.3 | 19.3 | 19.3 | 19.0 | 19.0 |
| 7/18/2011 | 17 | 19.0 | 19.0 | 19.1 | 19.3 | 19.3 | 19.2 | 19.1 | 19.1 |
| 7/18/2011 | 18 | 19.1 | 19.0 | 19.1 | 19.3 | 19.3 | 19.3 | 19.1 | 19.1 |
| 7/18/2011 | 19 | 19.1 | 19.1 | 19.2 | 19.3 | 19.3 | 19.3 | 19.2 | 19.1 |
| 7/18/2011 | 20 | 19.1 | 19.0 | 19.1 | 19.3 | 19.3 | 19.3 | 19.2 | 19.1 |
| 7/18/2011 | 21 | 19.1 | 19.0 | 19.1 | 19.3 | 19.3 | 19.2 | 19.3 | 19.1 |
| 7/18/2011 | 22 | 19.1 | 19.0 | 19.0 | 19.2 | 19.2 | 19.2 | 19.3 | 19.1 |
| 7/18/2011 | 23 | 19.1 | 19.0 | 19.0 | 19.2 | 19.2 | 19.2 | 19.3 | 19.1 |
| 7/18/2011 | 24 | 19.1 | 18.9 | 19.0 | 19.2 | 19.2 | 19.1 | 19.4 | 19.0 |
| 7/19/2011 | 1 | 19.0 | 18.9 | 19.0 | 19.2 | 19.2 | 19.1 | 19.4 | 19.0 |
| 7/19/2011 | 2 | 19.0 | 18.9 | 18.9 | 19.2 | 19.2 | 19.1 | 19.4 | 19.0 |
| 7/19/2011 | 3 | 18.9 | 18.8 | 18.9 | 19.1 | 19.1 | 19.0 | 19.4 | 18.9 |
| 7/19/2011 | 4 | 18.9 | 18.8 | 18.8 | 19.0 | 19.0 | 19.0 | 19.5 | 18.8 |
| 7/19/2011 | 5 | 18.9 | 18.6 | 18.7 | 18.9 | 18.9 | 18.9 | 19.3 | 18.8 |
| 7/19/2011 | 6 | 18.8 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.9 | 18.7 |
| 7/19/2011 | 7 | 18.7 | 18.5 | 18.6 | 18.7 | 18.7 | 18.7 | 18.9 | 18.6 |
| 7/19/2011 | 8 | 18.6 | 18.4 | 18.5 | 18.7 | 18.7 | 18.7 | 18.9 | 18.6 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/19/2011 | 9 | 18.6 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.5 |
| 7/19/2011 | 10 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.6 | 18.8 | 18.5 |
| 7/19/2011 | 11 | 18.5 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.4 |
| 7/19/2011 | 12 | 18.4 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.4 |
| 7/19/2011 | 13 | 18.4 | 18.3 | 18.4 | 18.6 | 18.6 | 18.6 | 18.7 | 18.4 |
| 7/19/2011 | 14 | 18.4 | 18.4 | 18.6 | 18.8 | 18.8 | 18.7 | 18.7 | 18.5 |
| 7/19/2011 | 15 | 18.5 | 18.5 | 18.7 | 18.9 | 18.9 | 18.9 | 18.7 | 18.6 |
| 7/19/2011 | 16 | 18.6 | 18.5 | 18.8 | 19.0 | 19.0 | 19.0 | 18.7 | 18.6 |
| 7/19/2011 | 17 | 18.6 | 18.6 | 18.7 | 19.0 | 19.0 | 19.0 | 18.7 | 18.7 |
| 7/19/2011 | 18 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.7 | 18.7 |
| 7/19/2011 | 19 | 18.7 | 18.6 | 18.7 | 18.9 | 18.9 | 18.8 | 18.8 | 18.7 |
| 7/19/2011 | 20 | 18.7 | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 18.8 | 18.7 |
| 7/19/2011 | 21 | 18.6 | 18.5 | 18.6 | 18.7 | 18.7 | 18.6 | 18.8 | 18.6 |
| 7/19/2011 | 22 | 18.6 | 18.5 | 18.5 | 18.7 | 18.7 | 18.6 | 18.8 | 18.6 |
| 7/19/2011 | 23 | 18.5 | 18.4 | 18.4 | 18.6 | 18.6 | 18.5 | 18.8 | 18.5 |
| 7/19/2011 | 24 | 18.5 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 18.7 | 18.4 |
| 7/20/2011 | 1 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.4 | 18.7 | 18.4 |
| 7/20/2011 | 2 | 18.4 | 18.2 | 18.3 | 18.5 | 18.5 | 18.4 | 18.6 | 18.3 |
| 7/20/2011 | 3 | 18.3 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 18.6 | 18.3 |
| 7/20/2011 | 4 | 18.3 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 18.5 | 18.3 |
| 7/20/2011 | 5 | 18.2 | 18.1 | 18.2 | 18.3 | 18.3 | 18.3 | 18.5 | 18.2 |
| 7/20/2011 | 6 | 18.2 | 18.1 | 18.1 | 18.3 | 18.3 | 18.2 | 18.4 | 18.2 |
| 7/20/2011 | 7 | 18.2 | 18.0 | 18.1 | 18.2 | 18.2 | 18.2 | 18.5 | 18.2 |
| 7/20/2011 | 8 | 18.1 | 18.0 | 18.1 | 18.3 | 18.3 | 18.2 | 18.5 | 18.1 |
| 7/20/2011 | 9 | 18.1 | 18.0 | 18.2 | 18.3 | 18.3 | 18.3 | 18.5 | 18.1 |
| 7/20/2011 | 10 | 18.1 | 18.1 | 18.3 | 18.5 | 18.4 | 18.4 | 18.5 | 18.2 |
| 7/20/2011 | 11 | 18.2 | 18.1 | 18.4 | 18.6 | 18.6 | 18.6 | 18.6 | 18.2 |
| 7/20/2011 | 12 | 18.3 | 18.2 | 18.5 | 18.7 | 18.7 | 18.7 | 18.6 | 18.3 |
| 7/20/2011 | 13 | 18.4 | 18.3 | 18.6 | 18.9 | 18.9 | 18.9 | 18.6 | 18.4 |
| 7/20/2011 | 14 | 18.5 | 18.4 | 18.8 | 19.0 | 19.0 | 19.0 | 18.6 | 18.5 |
| 7/20/2011 | 15 | 18.5 | 18.6 | 18.9 | 19.1 | 19.1 | 19.1 | 18.7 | 18.6 |
| 7/20/2011 | 16 | 18.6 | 18.7 | 19.0 | 19.2 | 19.2 | 19.2 | 18.8 | 18.7 |
| 7/20/2011 | 17 | 18.7 | 18.7 | 19.0 | 19.2 | 19.2 | 19.2 | 18.8 | 18.8 |
| 7/20/2011 | 18 | 18.8 | 18.7 | 18.9 | 19.1 | 19.1 | 19.1 | 18.9 | 18.8 |
| 7/20/2011 | 19 | 18.9 | 18.8 | 18.8 | 19.0 | 19.0 | 19.0 | 18.9 | 18.9 |
| 7/20/2011 | 20 | 19.0 | 18.8 | 18.7 | 18.9 | 18.9 | 18.9 | 19.0 | 18.9 |
| 7/20/2011 | 21 | 18.9 | 18.8 | 18.7 | 18.9 | 18.9 | 18.8 | 19.0 | 18.9 |
| 7/20/2011 | 22 | 18.9 | 18.7 | 18.7 | 18.8 | 18.8 | 18.7 | 19.1 | 18.8 |
| 7/20/2011 | 23 | 18.8 | 18.6 | 18.6 | 18.7 | 18.7 | 18.7 | 19.0 | 18.7 |
| 7/20/2011 | 24 | 18.7 | 18.6 | 18.5 | 18.7 | 18.7 | 18.6 | 19.0 | 18.6 |
| 7/21/2011 | 1 | 18.6 | 18.4 | 18.5 | 18.7 | 18.7 | 18.6 | 19.0 | 18.5 |
| 7/21/2011 | 2 | 18.5 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 19.0 | 18.5 |
| 7/21/2011 | 3 | 18.5 | 18.3 | 18.3 | 18.5 | 18.5 | 18.4 | 18.9 | 18.4 |
| 7/21/2011 | 4 | 18.4 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 19.0 | 18.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/21/2011 | 5 | 18.4 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 19.1 | 18.4 |
| 7/21/2011 | 6 | 18.3 | 18.2 | 18.2 | 18.3 | 18.3 | 18.3 | 18.8 | 18.3 |
| 7/21/2011 | 7 | 18.3 | 18.2 | 18.2 | 18.3 | 18.3 | 18.3 | 18.8 | 18.3 |
| 7/21/2011 | 8 | 18.3 | 18.2 | 18.2 | 18.4 | 18.4 | 18.3 | 18.7 | 18.3 |
| 7/21/2011 | 9 | 18.3 | 18.2 | 18.3 | 18.4 | 18.4 | 18.4 | 18.7 | 18.3 |
| 7/21/2011 | 10 | 18.3 | 18.2 | 18.3 | 18.5 | 18.5 | 18.4 | 18.7 | 18.3 |
| 7/21/2011 | 11 | 18.3 | 18.2 | 18.5 | 18.6 | 18.6 | 18.6 | 18.6 | 18.3 |
| 7/21/2011 | 12 | 18.3 | 18.3 | 18.8 | 18.9 | 18.9 | 18.9 | 18.6 | 18.4 |
| 7/21/2011 | 13 | 18.4 | 18.3 | 18.7 | 18.9 | 18.9 | 18.9 | 18.6 | 18.4 |
| 7/21/2011 | 14 | 18.4 | 18.4 | 18.6 | 18.8 | 18.8 | 18.7 | 18.6 | 18.4 |
| 7/21/2011 | 15 | 18.4 | 18.3 | 18.5 | 18.7 | 18.7 | 18.6 | 18.6 | 18.4 |
| 7/21/2011 | 16 | 18.4 | 18.3 | 18.4 | 18.6 | 18.6 | 18.5 | 18.6 | 18.4 |
| 7/21/2011 | 17 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.4 | 18.6 | 18.3 |
| 7/21/2011 | 18 | 18.4 | 18.2 | 18.3 | 18.4 | 18.3 | 18.3 | 18.6 | 18.4 |
| 7/21/2011 | 19 | 18.4 | 18.2 | 18.4 | 18.3 | 18.3 | 18.2 | 18.6 | 18.4 |
| 7/21/2011 | 20 | 18.4 | 18.2 | 18.5 | 18.2 | 18.2 | 18.1 | 18.6 | 18.3 |
| 7/21/2011 | 21 | 18.3 | 18.2 | 18.4 | 18.0 | 18.0 | 17.9 | 18.6 | 18.3 |
| 7/21/2011 | 22 | 18.3 | 18.1 | 18.4 | 17.7 | 17.7 | 17.7 | 18.5 | 18.3 |
| 7/21/2011 | 23 | 18.2 | 18.1 | 18.3 | 17.6 | 17.6 | 17.5 | 18.5 | 18.2 |
| 7/21/2011 | 24 | 18.2 | 18.0 | 18.3 | 17.6 | 17.6 | 17.5 | 18.5 | 18.2 |
| 7/22/2011 | 1 | 18.2 | 18.0 | 18.3 | 17.6 | 17.6 | 17.4 | 18.4 | 18.1 |
| 7/22/2011 | 2 | 18.1 | 18.0 | 18.3 | 17.6 | 17.6 | 17.4 | 18.4 | 18.1 |
| 7/22/2011 | 3 | 18.1 | 17.9 | 18.2 | 17.5 | 17.5 | 17.4 | 18.4 | 18.1 |
| 7/22/2011 | 4 | 18.1 | 17.9 | 18.2 | 17.5 | 17.5 | 17.4 | 18.3 | 18.0 |
| 7/22/2011 | 5 | 18.0 | 17.8 | 18.2 | 17.4 | 17.4 | 17.3 | 18.3 | 18.0 |
| 7/22/2011 | 6 | 18.0 | 17.8 | 18.2 | 17.3 | 17.3 | 17.2 | 18.3 | 17.9 |
| 7/22/2011 | 7 | 17.9 | 17.7 | 18.2 | 17.2 | 17.2 | 17.2 | 18.3 | 17.8 |
| 7/22/2011 | 8 | 17.8 | 17.7 | 18.2 | 17.3 | 17.3 | 17.2 | 18.2 | 17.8 |
| 7/22/2011 | 9 | 17.8 | 17.7 | 18.4 | 17.6 | 17.6 | 17.5 | 18.2 | 17.8 |
| 7/22/2011 | 10 | 17.8 | 17.7 | 18.6 | 18.0 | 17.9 | 17.9 | 18.2 | 17.8 |
| 7/22/2011 | 11 | 17.8 | 17.8 | 18.8 | 18.5 | 18.5 | 18.4 | 18.2 | 17.8 |
| 7/22/2011 | 12 | 17.9 | 17.9 | 19.0 | 19.0 | 19.0 | 19.0 | 18.1 | 17.9 |
| 7/22/2011 | 13 | 18.0 | 18.0 | 19.2 | 19.4 | 19.3 | 19.4 | 18.2 | 18.0 |
| 7/22/2011 | 14 | 18.2 | 18.2 | 19.4 | 19.6 | 19.6 | 19.7 | 18.3 | 18.2 |
| 7/22/2011 | 15 | 18.2 | 18.3 | 19.4 | 19.7 | 19.7 | 19.8 | 18.4 | 18.3 |
| 7/22/2011 | 16 | N/A | 18.4 | 19.4 | 19.7 | 19.7 | 19.9 | 18.4 | 18.3 |
| 7/22/2011 | 17 | N/A | 18.4 | 19.2 | 19.6 | 19.7 | 19.7 | 18.5 | 18.4 |
| 7/22/2011 | 18 | N/A | 18.5 | 19.0 | 19.4 | 19.4 | 19.5 | 18.6 | 18.5 |
| 7/22/2011 | 19 | N/A | 18.4 | 18.7 | 19.1 | 19.1 | 19.1 | 18.7 | 18.5 |
| 7/22/2011 | 20 | N/A | 18.5 | 18.4 | 18.7 | 18.7 | 18.7 | 18.7 | 18.6 |
| 7/22/2011 | 21 | N/A | 18.6 | 18.2 | 18.3 | 18.4 | 18.4 | 18.7 | 18.6 |
| 7/22/2011 | 22 | N/A | 18.5 | 18.1 | 18.1 | 18.1 | 18.0 | 18.7 | 18.5 |
| 7/22/2011 | 23 | N/A | 18.4 | 18.0 | 18.0 | 18.0 | 17.9 | 18.7 | 18.5 |
| 7/22/2011 | 24 | N/A | 18.3 | 17.9 | 17.9 | 17.9 | 17.8 | 18.7 | 18.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/23/2011 | 1 | N/A | 18.3 | 17.8 | 17.8 | 17.8 | 17.7 | 18.6 | 18.3 |
| 7/23/2011 | 2 | N/A | 18.2 | 17.7 | 17.7 | 17.7 | 17.6 | 18.6 | 18.3 |
| 7/23/2011 | 3 | N/A | 18.2 | 17.7 | 17.7 | 17.7 | 17.6 | 18.6 | 18.3 |
| 7/23/2011 | 4 | N/A | 18.1 | 17.7 | 17.6 | 17.6 | 17.5 | 18.5 | 18.2 |
| 7/23/2011 | 5 | N/A | 18.1 | 17.7 | 17.6 | 17.6 | 17.5 | 18.5 | 18.2 |
| 7/23/2011 | 6 | N/A | 18.0 | 17.6 | 17.6 | 17.6 | 17.5 | 18.5 | 18.1 |
| 7/23/2011 | 7 | N/A | 18.0 | 17.6 | 17.5 | 17.5 | 17.5 | 18.5 | 18.1 |
| 7/23/2011 | 8 | N/A | 18.0 | 17.8 | 17.6 | 17.6 | 17.5 | 18.5 | 18.0 |
| 7/23/2011 | 9 | N/A | 18.0 | 18.1 | 17.8 | 17.8 | 17.7 | 18.5 | 18.0 |
| 7/23/2011 | 10 | N/A | 18.0 | 18.6 | 18.2 | 18.2 | 18.1 | 18.4 | 18.1 |
| 7/23/2011 | 11 | N/A | 18.1 | 19.0 | 18.8 | 18.8 | 18.7 | 18.4 | 18.1 |
| 7/23/2011 | 12 | N/A | 18.2 | 19.3 | 19.3 | 19.3 | 19.3 | 18.4 | 18.2 |
| 7/23/2011 | 13 | N/A | 18.3 | 19.6 | 19.7 | 19.7 | 19.8 | 18.5 | 18.3 |
| 7/23/2011 | 14 | N/A | 18.5 | 19.8 | 20.0 | 20.0 | 20.1 | 18.6 | 18.4 |
| 7/23/2011 | 15 | N/A | 18.6 | 19.8 | 20.1 | 20.2 | 20.3 | 18.7 | 18.5 |
| 7/23/2011 | 16 | N/A | 18.7 | 19.9 | 20.2 | 20.2 | 20.3 | 18.7 | 18.6 |
| 7/23/2011 | 17 | N/A | 18.7 | 19.7 | 20.1 | 20.1 | 20.2 | 18.8 | 18.7 |
| 7/23/2011 | 18 | N/A | 18.8 | 19.5 | 19.9 | 19.9 | 20.0 | 18.9 | 18.8 |
| 7/23/2011 | 19 | N/A | 18.7 | 19.2 | 19.6 | 19.7 | 19.7 | 19.0 | 18.8 |
| 7/23/2011 | 20 | N/A | 18.8 | 18.8 | 19.3 | 19.3 | 19.3 | 19.1 | 18.8 |
| 7/23/2011 | 21 | N/A | 18.8 | 18.6 | 18.9 | 18.9 | 18.9 | 19.1 | 18.8 |
| 7/23/2011 | 22 | N/A | 18.8 | 18.5 | 18.7 | 18.7 | 18.6 | 19.0 | 18.8 |
| 7/23/2011 | 23 | N/A | 18.8 | 18.5 | 18.6 | 18.6 | 18.5 | 19.0 | 18.8 |
| 7/23/2011 | 24 | N/A | 18.7 | 18.4 | 18.6 | 18.5 | 18.4 | 19.0 | 18.8 |
| 7/24/2011 | 1 | N/A | 18.7 | 18.4 | 18.5 | 18.5 | 18.4 | 19.0 | 18.8 |
| 7/24/2011 | 2 | N/A | 18.6 | 18.3 | 18.4 | 18.4 | 18.3 | 18.9 | 18.7 |
| 7/24/2011 | 3 | N/A | 18.6 | 18.2 | 18.3 | 18.3 | 18.2 | 18.9 | 18.7 |
| 7/24/2011 | 4 | N/A | 18.5 | 18.1 | 18.2 | 18.2 | 18.2 | 18.9 | 18.6 |
| 7/24/2011 | 5 | N/A | 18.4 | 18.1 | 18.2 | 18.1 | 18.1 | 18.9 | 18.6 |
| 7/24/2011 | 6 | N/A | 18.4 | 18.0 | 18.1 | 18.1 | 18.0 | 18.9 | 18.5 |
| 7/24/2011 | 7 | N/A | 18.4 | 18.0 | 18.0 | 18.0 | 17.9 | 18.9 | 18.5 |
| 7/24/2011 | 8 | N/A | 18.3 | 18.2 | 18.1 | 18.1 | 18.0 | 18.8 | 18.4 |
| 7/24/2011 | 9 | N/A | 18.4 | 18.6 | 18.3 | 18.3 | 18.2 | 18.8 | 18.4 |
| 7/24/2011 | 10 | N/A | 18.4 | 19.0 | 18.7 | 18.7 | 18.7 | 18.8 | 18.5 |
| 7/24/2011 | 11 | N/A | 18.5 | 19.5 | 19.3 | 19.3 | 19.2 | 18.8 | 18.5 |
| 7/24/2011 | 12 | N/A | 18.6 | 19.8 | 19.9 | 19.8 | 19.8 | 18.8 | 18.6 |
| 7/24/2011 | 13 | N/A | 18.8 | 20.1 | 20.3 | 20.2 | 20.3 | 18.9 | 18.7 |
| 7/24/2011 | 14 | N/A | 19.0 | 20.3 | 20.5 | 20.5 | 20.6 | 19.0 | 18.8 |
| 7/24/2011 | 15 | N/A | 19.1 | 20.3 | 20.7 | 20.7 | 20.8 | 19.1 | 19.0 |
| 7/24/2011 | 16 | N/A | 19.1 | 20.3 | 20.7 | 20.7 | 20.8 | 19.2 | 19.1 |
| 7/24/2011 | 17 | N/A | 19.2 | 20.2 | 20.7 | 20.7 | 20.8 | 19.3 | 19.2 |
| 7/24/2011 | 18 | N/A | 19.3 | 20.0 | 20.4 | 20.4 | 20.5 | 19.4 | 19.3 |
| 7/24/2011 | 19 | N/A | 19.3 | 19.7 | 20.1 | 20.2 | 20.2 | 19.5 | 19.3 |
| 7/24/2011 | 20 | N/A | 19.2 | 19.4 | 19.8 | 19.8 | 19.8 | 19.5 | 19.3 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/24/2011 | 21 | N/A | 19.2 | 19.2 | 19.5 | 19.5 | 19.5 | 19.5 | 19.3 |
| 7/24/2011 | 22 | N/A | 19.1 | 19.0 | 19.3 | 19.3 | 19.3 | 19.4 | 19.3 |
| 7/24/2011 | 23 | N/A | 19.0 | 18.9 | 19.2 | 19.2 | 19.1 | 19.3 | 19.2 |
| 7/24/2011 | 24 | N/A | 18.8 | 18.8 | 19.1 | 19.1 | 19.0 | 19.3 | 19.1 |
| 7/25/2011 | 1 | N/A | 18.7 | 18.7 | 18.9 | 18.9 | 18.9 | 19.2 | 18.9 |
| 7/25/2011 | 2 | N/A | 18.6 | 18.6 | 18.8 | 18.8 | 18.7 | 19.1 | 18.8 |
| 7/25/2011 | 3 | N/A | 18.5 | 18.4 | 18.7 | 18.7 | 18.6 | 19.0 | 18.7 |
| 7/25/2011 | 4 | N/A | 18.3 | 18.3 | 18.5 | 18.5 | 18.5 | 19.0 | 18.6 |
| 7/25/2011 | 5 | N/A | 18.2 | 18.2 | 18.4 | 18.4 | 18.4 | 18.9 | 18.5 |
| 7/25/2011 | 6 | N/A | 18.2 | 18.2 | 18.3 | 18.3 | 18.3 | 18.9 | 18.5 |
| 7/25/2011 | 7 | N/A | 18.3 | 18.1 | 18.2 | 18.2 | 18.2 | 18.9 | 18.5 |
| 7/25/2011 | 8 | N/A | 18.3 | 18.3 | 18.2 | 18.2 | 18.2 | 18.9 | 18.6 |
| 7/25/2011 | 9 | N/A | 18.3 | 18.6 | 18.5 | 18.5 | 18.4 | 18.9 | 18.6 |
| 7/25/2011 | 10 | N/A | 18.3 | 18.6 | 18.7 | 18.7 | 18.6 | 18.9 | 18.6 |
| 7/25/2011 | 11 | N/A | 18.2 | 18.5 | 18.7 | 18.7 | 18.7 | 18.9 | 18.6 |
| 7/25/2011 | 12 | N/A | 18.3 | 18.5 | 18.7 | 18.7 | 18.6 | 18.9 | 18.6 |
| 7/25/2011 | 13 | N/A | 18.1 | 18.4 | 19.0 | 18.5 | 18.5 | 18.9 | 18.6 |
| 7/25/2011 | 14 | N/A | 18.3 | 18.4 | 18.5 | 18.4 | 18.4 | 18.9 | 18.6 |
| 7/25/2011 | 15 | N/A | 18.3 | 18.6 | 18.6 | 18.5 | 18.6 | 18.9 | 18.6 |
| 7/25/2011 | 16 | N/A | 18.5 | 19.2 | 18.9 | 18.8 | 19.0 | 18.9 | 18.7 |
| 7/25/2011 | 17 | N/A | 18.5 | 19.4 | 19.4 | 19.3 | 19.2 | 18.9 | 18.7 |
| 7/25/2011 | 18 | N/A | 18.5 | 19.4 | 19.6 | 19.5 | 19.5 | 18.9 | 18.7 |
| 7/25/2011 | 19 | N/A | 18.6 | 19.1 | 19.5 | 19.5 | 19.5 | 18.9 | 18.7 |
| 7/25/2011 | 20 | N/A | 18.5 | 18.7 | 19.2 | 19.2 | 19.2 | 18.9 | 18.7 |
| 7/25/2011 | 21 | N/A | 18.3 | 18.5 | 18.9 | 18.8 | 18.9 | 18.9 | 18.7 |
| 7/25/2011 | 22 | N/A | 18.2 | 18.3 | 18.6 | 18.5 | 18.6 | 18.9 | 18.7 |
| 7/25/2011 | 23 | N/A | 18.1 | 18.1 | 18.3 | 18.3 | 18.3 | 18.8 | 18.6 |
| 7/25/2011 | 24 | N/A | 18.0 | 18.0 | 18.1 | 18.1 | 18.1 | 18.8 | 18.6 |
| 7/26/2011 | 1 | N/A | 18.0 | 17.9 | 18.0 | 17.9 | 17.9 | 18.8 | 18.5 |
| 7/26/2011 | 2 | N/A | 18.1 | 17.8 | 17.9 | 17.8 | 17.8 | 18.8 | 18.5 |
| 7/26/2011 | 3 | N/A | 18.1 | 17.7 | 17.8 | 17.7 | 17.7 | 18.8 | 18.5 |
| 7/26/2011 | 4 | N/A | 18.2 | 17.7 | 17.7 | 17.6 | 17.6 | 18.7 | 18.5 |
| 7/26/2011 | 5 | N/A | 18.3 | 17.7 | 17.6 | 17.5 | 17.5 | 18.8 | 18.5 |
| 7/26/2011 | 6 | N/A | 18.4 | 17.7 | 17.5 | 17.5 | 17.4 | 18.8 | 18.6 |
| 7/26/2011 | 7 | N/A | 18.4 | 17.7 | 17.5 | 17.5 | 17.4 | 18.8 | 18.5 |
| 7/26/2011 | 8 | N/A | 18.5 | 18.1 | 17.7 | 17.6 | 17.6 | 18.9 | 18.5 |
| 7/26/2011 | 9 | N/A | 18.6 | 18.4 | 17.9 | 17.8 | 17.9 | 18.9 | 18.6 |
| 7/26/2011 | 10 | N/A | 18.7 | 18.9 | 18.3 | 18.1 | 18.2 | 18.9 | 18.6 |
| 7/26/2011 | 11 | N/A | 18.7 | 19.5 | 18.8 | 18.6 | 18.7 | 19.0 | 18.7 |
| 7/26/2011 | 12 | N/A | 18.7 | 20.1 | 19.5 | 19.3 | 19.5 | 19.0 | 18.7 |
| 7/26/2011 | 13 | N/A | 18.9 | 20.0 | 20.3 | 20.1 | 20.2 | 19.1 | 18.8 |
| 7/26/2011 | 14 | N/A | 18.9 | 20.1 | 21.0 | 20.7 | 20.9 | 19.2 | 18.9 |
| 7/26/2011 | 15 | N/A | 18.9 | 20.3 | 21.3 | 21.1 | 21.3 | 19.3 | 19.1 |
| 7/26/2011 | 16 | N/A | 19.0 | 20.2 | 21.6 | 21.6 | 21.6 | 19.3 | 19.2 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/26/2011 | 17 | N/A | 19.0 | 20.0 | 21.7 | 21.8 | 21.9 | 19.4 | 19.2 |
| 7/26/2011 | 18 | N/A | 19.0 | 19.8 | 21.7 | 21.7 | 21.9 | 19.5 | 19.3 |
| 7/26/2011 | 19 | N/A | 19.0 | 19.4 | 21.3 | 21.3 | 21.4 | 19.6 | 19.4 |
| 7/26/2011 | 20 | N/A | 19.0 | 19.1 | 20.9 | 20.9 | 20.9 | 19.7 | 19.4 |
| 7/26/2011 | 21 | N/A | 19.1 | 18.7 | 20.4 | 20.4 | 20.5 | 19.6 | 19.4 |
| 7/26/2011 | 22 | N/A | 19.2 | 18.5 | 19.9 | 19.9 | 20.1 | 19.6 | 19.4 |
| 7/26/2011 | 23 | N/A | 19.2 | 18.3 | 19.3 | 19.3 | 19.6 | 19.6 | 19.4 |
| 7/26/2011 | 24 | N/A | 19.2 | 18.2 | 18.7 | 18.7 | 19.1 | 19.6 | 19.4 |
| 7/27/2011 | 1 | N/A | 19.2 | 18.1 | 18.3 | 18.2 | 18.6 | 19.6 | 19.3 |
| 7/27/2011 | 2 | N/A | 19.1 | 18.1 | 17.9 | 17.9 | 18.2 | 19.5 | 19.3 |
| 7/27/2011 | 3 | N/A | 19.0 | 18.1 | 17.7 | 17.6 | 17.8 | 19.5 | 19.2 |
| 7/27/2011 | 4 | N/A | 19.0 | 18.0 | 17.5 | 17.5 | 17.5 | 19.5 | 19.2 |
| 7/27/2011 | 5 | N/A | 18.9 | 18.0 | 17.4 | 17.4 | 17.3 | 19.5 | 19.2 |
| 7/27/2011 | 6 | N/A | 18.9 | 18.0 | 17.3 | 17.3 | 17.2 | 19.5 | 19.1 |
| 7/27/2011 | 7 | N/A | 18.9 | 18.0 | 17.3 | 17.2 | 17.2 | 19.5 | 19.1 |
| 7/27/2011 | 8 | N/A | 19.0 | 18.2 | 17.4 | 17.3 | 17.4 | 19.5 | 19.0 |
| 7/27/2011 | 9 | N/A | 19.0 | 18.5 | 17.7 | 17.4 | 17.7 | 19.5 | 19.0 |
| 7/27/2011 | 10 | N/A | 19.1 | 18.8 | 17.9 | 17.6 | 17.9 | 19.4 | 19.1 |
| 7/27/2011 | 11 | N/A | 19.1 | 19.2 | 18.3 | 18.0 | 18.4 | 19.4 | 19.1 |
| 7/27/2011 | 12 | N/A | 19.2 | 19.7 | 19.0 | 18.7 | 19.0 | 19.4 | 19.2 |
| 7/27/2011 | 13 | N/A | 19.3 | 20.0 | 19.8 | 19.5 | 19.8 | 19.5 | 19.3 |
| 7/27/2011 | 14 | N/A | 19.5 | 20.3 | 20.7 | 20.4 | 20.6 | 19.6 | 19.4 |
| 7/27/2011 | 15 | N/A | 19.6 | 20.6 | 21.3 | 21.1 | 21.1 | 19.7 | 19.5 |
| 7/27/2011 | 16 | N/A | 19.6 | 21.7 | 21.6 | 21.7 | 21.6 | 19.7 | 19.6 |
| 7/27/2011 | 17 | N/A | 19.6 | 21.5 | 21.9 | 22.0 | 22.1 | 19.8 | 19.7 |
| 7/27/2011 | 18 | N/A | 19.7 | 21.1 | 22.0 | 22.1 | 22.2 | 19.9 | 19.7 |
| 7/27/2011 | 19 | N/A | 19.7 | 20.6 | 21.8 | 21.8 | 21.8 | 20.0 | 19.8 |
| 7/27/2011 | 20 | N/A | 19.7 | 19.8 | 21.5 | 21.4 | 21.4 | 20.0 | 19.8 |
| 7/27/2011 | 21 | N/A | 19.7 | 19.2 | 21.0 | 21.0 | 21.1 | 20.0 | 19.8 |
| 7/27/2011 | 22 | N/A | 19.7 | 18.6 | 20.4 | 20.3 | 20.4 | 20.0 | 19.8 |
| 7/27/2011 | 23 | N/A | 19.7 | 18.2 | 19.6 | 19.6 | 19.7 | 20.0 | 19.8 |
| 7/27/2011 | 24 | N/A | 19.6 | 17.9 | 18.9 | 18.9 | 19.0 | 19.9 | 19.8 |
| 7/28/2011 | 1 | N/A | 19.6 | 17.8 | 18.4 | 18.4 | 18.4 | 19.9 | 19.7 |
| 7/28/2011 | 2 | N/A | 19.5 | 17.7 | 18.0 | 17.9 | 17.9 | 19.9 | 19.7 |
| 7/28/2011 | 3 | N/A | 19.4 | 17.6 | 17.7 | 17.7 | 17.7 | 19.8 | 19.6 |
| 7/28/2011 | 4 | N/A | 19.3 | 17.5 | 17.5 | 17.4 | 17.4 | 19.8 | 19.5 |
| 7/28/2011 | 5 | N/A | 19.3 | 17.6 | 17.3 | 17.3 | 17.2 | 19.8 | 19.4 |
| 7/28/2011 | 6 | N/A | 19.2 | 17.7 | 17.2 | 17.2 | 17.1 | 19.8 | 19.4 |
| 7/28/2011 | 7 | N/A | 19.2 | 17.7 | 17.2 | 17.2 | 17.1 | 19.8 | 19.3 |
| 7/28/2011 | 8 | N/A | 19.3 | 18.1 | 17.5 | 17.2 | 17.2 | 19.8 | 19.3 |
| 7/28/2011 | 9 | N/A | 19.3 | 18.6 | 17.7 | 17.4 | 17.5 | 19.8 | 19.3 |
| 7/28/2011 | 10 | N/A | 19.4 | 19.2 | 18.0 | 17.7 | 17.9 | 19.8 | 19.4 |
| 7/28/2011 | 11 | N/A | 19.5 | 19.9 | 18.5 | 18.2 | 18.4 | 19.8 | 19.5 |
| 7/28/2011 | 12 | N/A | 19.6 | 20.7 | 19.2 | 18.9 | 19.1 | 19.8 | 19.5 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/28/2011 | 13 | N/A | 19.7 | 21.4 | 20.2 | 19.9 | 20.0 | 19.8 | 19.6 |
| 7/28/2011 | 14 | N/A | 19.9 | 21.9 | 21.0 | 20.7 | 20.9 | 19.9 | 19.7 |
| 7/28/2011 | 15 | N/A | 20.1 | 22.2 | 21.7 | 21.5 | 21.7 | 20.0 | 19.9 |
| 7/28/2011 | 16 | N/A | 20.1 | 22.3 | 22.1 | 22.2 | 22.3 | 20.1 | 20.0 |
| 7/28/2011 | 17 | N/A | 20.2 | 22.0 | 22.5 | 22.6 | 22.7 | 20.1 | 20.1 |
| 7/28/2011 | 18 | N/A | 20.1 | 21.5 | 22.6 | 22.6 | 22.8 | 20.2 | 20.1 |
| 7/28/2011 | 19 | N/A | 20.0 | 21.1 | 22.3 | 22.3 | 22.4 | 20.3 | 20.1 |
| 7/28/2011 | 20 | N/A | 19.9 | 20.4 | 21.9 | 21.9 | 21.9 | 20.3 | 20.1 |
| 7/28/2011 | 21 | N/A | 19.9 | 19.7 | 21.5 | 21.5 | 21.5 | 20.3 | 20.1 |
| 7/28/2011 | 22 | N/A | 20.0 | 19.3 | 21.1 | 21.1 | 21.1 | 20.3 | 20.1 |
| 7/28/2011 | 23 | N/A | 20.0 | 19.0 | 20.5 | 20.5 | 20.6 | 20.3 | 20.1 |
| 7/28/2011 | 24 | N/A | 20.0 | 18.8 | 20.0 | 19.9 | 20.1 | 20.3 | 20.1 |
| 7/29/2011 | 1 | N/A | 19.9 | 18.7 | 19.5 | 19.4 | 19.6 | 20.2 | 20.0 |
| 7/29/2011 | 2 | N/A | 19.8 | 18.6 | 19.1 | 19.1 | 19.1 | 20.2 | 20.0 |
| 7/29/2011 | 3 | N/A | 19.8 | 18.5 | 18.9 | 18.8 | 18.8 | 20.2 | 19.9 |
| 7/29/2011 | 4 | N/A | 19.7 | 18.4 | 18.7 | 18.7 | 18.6 | 20.2 | 19.8 |
| 7/29/2011 | 5 | N/A | 19.6 | 18.3 | 18.5 | 18.5 | 18.4 | 20.2 | 19.8 |
| 7/29/2011 | 6 | N/A | 19.5 | 18.3 | 18.4 | 18.3 | 18.3 | 20.1 | 19.7 |
| 7/29/2011 | 7 | N/A | 19.6 | 18.3 | 18.2 | 18.2 | 18.2 | 20.1 | 19.7 |
| 7/29/2011 | 8 | N/A | 19.6 | 18.7 | 18.4 | 18.2 | 18.2 | 20.1 | 19.7 |
| 7/29/2011 | 9 | N/A | 19.6 | 19.2 | 18.6 | 18.3 | 18.5 | 20.1 | 19.7 |
| 7/29/2011 | 10 | N/A | 19.7 | 19.7 | 18.9 | 18.6 | 18.8 | 20.1 | 19.7 |
| 7/29/2011 | 11 | N/A | 19.8 | 20.4 | 19.3 | 19.0 | 19.2 | 20.1 | 19.7 |
| 7/29/2011 | 12 | N/A | 19.9 | 21.2 | 20.0 | 19.7 | 19.8 | 20.1 | 19.8 |
| 7/29/2011 | 13 | N/A | 20.1 | 21.8 | 20.7 | 20.5 | 20.6 | 20.2 | 19.9 |
| 7/29/2011 | 14 | N/A | 20.2 | 22.3 | 21.6 | 21.3 | 21.5 | 20.2 | 20.0 |
| 7/29/2011 | 15 | N/A | 20.3 | 22.3 | 22.2 | 22.0 | 22.2 | 20.3 | 20.1 |
| 7/29/2011 | 16 | N/A | 20.3 | 22.3 | 22.5 | 22.6 | 22.7 | 20.3 | 20.3 |
| 7/29/2011 | 17 | N/A | 20.2 | 22.3 | 22.7 | 22.8 | 23.0 | 20.4 | 20.4 |
| 7/29/2011 | 18 | N/A | 20.3 | 21.6 | 22.9 | 22.9 | 22.9 | 20.5 | 20.4 |
| 7/29/2011 | 19 | N/A | 20.3 | 20.8 | 21.5 | 21.4 | 21.7 | 20.5 | 20.3 |
| 7/29/2011 | 20 | N/A | 20.4 | 20.4 | 20.9 | 20.8 | 20.8 | 20.6 | 20.4 |
| 7/29/2011 | 21 | N/A | 20.1 | 20.2 | 20.5 | 20.4 | 20.5 | 20.5 | 20.3 |
| 7/29/2011 | 22 | N/A | 19.3 | 19.9 | 20.2 | 20.2 | 20.2 | 20.3 | 20.0 |
| 7/29/2011 | 23 | N/A | 19.4 | 19.8 | 20.0 | 19.9 | 19.9 | 20.2 | 19.7 |
| 7/29/2011 | 24 | N/A | 19.1 | 19.5 | 19.8 | 19.7 | 19.7 | 20.1 | 19.6 |
| 7/30/2011 | 1 | N/A | 19.3 | 19.3 | 19.5 | 19.5 | 19.5 | 20.0 | 19.5 |
| 7/30/2011 | 2 | N/A | 19.1 | 19.2 | 19.4 | 19.3 | 19.3 | 19.9 | 19.7 |
| 7/30/2011 | 3 | N/A | 19.4 | 19.1 | 19.2 | 19.2 | 19.2 | 19.9 | 19.7 |
| 7/30/2011 | 4 | N/A | 19.6 | 19.2 | 19.2 | 19.1 | 19.1 | 20.0 | 19.8 |
| 7/30/2011 | 5 | N/A | 19.6 | 19.2 | 19.3 | 19.2 | 19.1 | 20.0 | 19.8 |
| 7/30/2011 | 6 | N/A | 19.7 | 19.2 | 19.3 | 19.2 | 19.2 | 20.1 | 19.8 |
| 7/30/2011 | 7 | N/A | 19.8 | 19.3 | 19.3 | 19.2 | 19.2 | 20.1 | 19.9 |
| 7/30/2011 | 8 | N/A | 19.8 | 19.6 | 19.4 | 19.4 | 19.3 | 20.2 | 19.9 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 7/30/2011 | 9 | N/A | 19.9 | 20.0 | 19.7 | 19.7 | 19.6 | 20.2 | 20.0 |
| 7/30/2011 | 10 | N/A | 20.0 | 20.3 | 20.2 | 20.2 | 20.1 | 20.3 | 20.0 |
| 7/30/2011 | 11 | N/A | 20.0 | 20.6 | 20.6 | 20.5 | 20.6 | 20.4 | 20.1 |
| 7/30/2011 | 12 | N/A | 20.1 | 20.8 | 20.9 | 20.8 | 20.9 | 20.4 | 20.2 |
| 7/30/2011 | 13 | N/A | 20.2 | 21.0 | 21.1 | 21.0 | 21.1 | 20.5 | 20.3 |
| 7/30/2011 | 14 | N/A | 20.4 | 21.1 | 21.3 | 21.2 | 21.3 | 20.6 | 20.4 |
| 7/30/2011 | 15 | N/A | 20.5 | 21.2 | 21.4 | 21.3 | 21.5 | 20.7 | 20.5 |
| 7/30/2011 | 16 | N/A | 20.6 | 21.2 | 21.4 | 21.4 | 21.5 | 20.7 | 20.6 |
| 7/30/2011 | 17 | N/A | 20.6 | 21.1 | 21.3 | 21.3 | 21.4 | 20.8 | 20.6 |
| 7/30/2011 | 18 | N/A | 20.7 | 20.9 | 21.1 | 21.1 | 21.1 | 20.9 | 20.6 |
| 7/30/2011 | 19 | N/A | 20.6 | 20.7 | 21.0 | 20.9 | 20.9 | 20.8 | 20.6 |
| 7/30/2011 | 20 | N/A | 20.5 | 20.5 | 20.8 | 20.7 | 20.7 | 20.8 | 20.5 |
| 7/30/2011 | 21 | N/A | 20.3 | 20.4 | 20.6 | 20.5 | 20.5 | 20.7 | 20.5 |
| 7/30/2011 | 22 | N/A | 20.3 | 20.3 | 20.5 | 20.4 | 20.4 | 20.6 | 20.4 |
| 7/30/2011 | 23 | N/A | 20.1 | 20.2 | 20.5 | 20.4 | 20.4 | 20.6 | 20.4 |
| 7/30/2011 | 24 | N/A | 20.0 | 20.1 | 20.3 | 20.2 | 20.2 | 20.5 | 20.3 |
| 7/31/2011 | 1 | N/A | 19.9 | 20.0 | 20.2 | 20.2 | 20.2 | 20.5 | 20.2 |
| 7/31/2011 | 2 | N/A | 19.7 | 19.9 | 20.1 | 20.0 | 20.0 | 20.4 | 20.0 |
| 7/31/2011 | 3 | N/A | 19.6 | 19.7 | 19.9 | 19.9 | 19.8 | 20.4 | 20.0 |
| 7/31/2011 | 4 | N/A | 19.7 | 19.7 | 19.8 | 19.7 | 19.7 | 20.5 | 20.0 |
| 7/31/2011 | 5 | N/A | 19.8 | 19.7 | 19.8 | 19.7 | 19.7 | 20.5 | 20.0 |
| 7/31/2011 | 6 | N/A | 20.0 | 19.7 | 19.7 | 19.7 | 19.7 | 20.5 | 20.0 |
| 7/31/2011 | 7 | N/A | 20.1 | 19.8 | 19.8 | 19.7 | 19.7 | 20.5 | 20.1 |
| 7/31/2011 | 8 | N/A | 20.1 | 20.0 | 20.0 | 19.9 | 19.9 | 20.5 | 20.2 |
| 7/31/2011 | 9 | N/A | 20.2 | 20.3 | 20.3 | 20.2 | 20.2 | 20.5 | 20.2 |
| 7/31/2011 | 10 | N/A | 20.3 | 20.6 | 20.6 | 20.5 | 20.5 | 20.6 | 20.3 |
| 7/31/2011 | 11 | N/A | 20.4 | 20.9 | 20.9 | 20.8 | 20.8 | 20.7 | 20.4 |
| 7/31/2011 | 12 | N/A | 20.5 | 21.1 | 21.2 | 21.1 | 21.1 | 20.7 | 20.5 |
| 7/31/2011 | 13 | N/A | 20.6 | 21.2 | 21.3 | 21.2 | 21.3 | 20.8 | 20.6 |
| 7/31/2011 | 14 | N/A | 20.7 | 21.3 | 21.4 | 21.3 | 21.4 | 20.9 | 20.7 |
| 7/31/2011 | 15 | N/A | 20.8 | 21.3 | 21.5 | 21.4 | 21.5 | 21.0 | 20.8 |
| 7/31/2011 | 16 | N/A | 20.8 | 21.2 | 21.4 | 21.4 | 21.5 | 21.0 | 20.9 |
| 7/31/2011 | 17 | N/A | 20.8 | 21.2 | 21.3 | 21.3 | 21.4 | 21.1 | 20.9 |
| 7/31/2011 | 18 | N/A | 20.8 | 21.0 | 21.2 | 21.1 | 21.2 | 21.2 | 20.9 |
| 7/31/2011 | 19 | N/A | 20.8 | 20.7 | 20.9 | 20.8 | 20.8 | 21.1 | 20.9 |
| 7/31/2011 | 20 | N/A | 20.7 | 20.6 | 20.7 | 20.7 | 20.6 | 21.1 | 20.8 |
| 7/31/2011 | 21 | N/A | 20.7 | 20.5 | 20.7 | 20.6 | 20.6 | 21.0 | 20.8 |
| 7/31/2011 | 22 | N/A | 20.6 | 20.5 | 20.6 | 20.6 | 20.5 | 21.0 | 20.8 |
| 7/31/2011 | 23 | N/A | 20.6 | 20.4 | 20.6 | 20.5 | 20.5 | 20.9 | 20.7 |
| 7/31/2011 | 24 | N/A | 20.5 | 20.3 | 20.5 | 20.4 | 20.4 | 20.9 | 20.6 |
| 8/1/2011 | 1 | N/A | 20.4 | 20.2 | 20.4 | 20.3 | 20.3 | 20.8 | 20.6 |
| 8/1/2011 | 2 | N/A | 20.4 | 20.2 | 20.3 | 20.3 | 20.2 | 20.8 | 20.5 |
| 8/1/2011 | 3 | N/A | 20.3 | 20.2 | 20.3 | 20.2 | 20.2 | 20.7 | 20.4 |
| 8/1/2011 | 4 | N/A | 20.2 | 20.1 | 20.2 | 20.2 | 20.1 | 20.7 | 20.3 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/1/2011 | 5 | N/A | 20.1 | 20.0 | 20.1 | 20.1 | 20.0 | 20.6 | 20.2 |
| 8/1/2011 | 6 | N/A | 20.0 | 19.9 | 20.0 | 19.9 | 19.9 | 20.5 | 20.1 |
| 8/1/2011 | 7 | N/A | 19.9 | 19.8 | 19.9 | 19.9 | 19.8 | 20.5 | 20.1 |
| 8/1/2011 | 8 | N/A | 19.9 | 19.9 | 20.0 | 19.9 | 19.9 | 20.4 | 20.1 |
| 8/1/2011 | 9 | N/A | 19.9 | 20.1 | 20.1 | 20.0 | 20.0 | 20.3 | 20.1 |
| 8/1/2011 | 10 | N/A | 20.0 | 20.2 | 20.3 | 20.2 | 20.2 | 20.3 | 20.1 |
| 8/1/2011 | 11 | N/A | 20.1 | 20.4 | 20.5 | 20.5 | 20.5 | 20.4 | 20.2 |
| 8/1/2011 | 12 | N/A | 20.1 | 20.6 | 20.7 | 20.7 | 20.7 | 20.5 | 20.2 |
| 8/1/2011 | 13 | N/A | 20.2 | 20.7 | 20.8 | 20.8 | 20.8 | 20.5 | 20.3 |
| 8/1/2011 | 14 | N/A | 20.3 | 20.8 | 21.0 | 20.9 | 21.0 | 20.6 | 20.4 |
| 8/1/2011 | 15 | N/A | 20.4 | 20.9 | 21.0 | 21.0 | 21.0 | 20.7 | 20.6 |
| 8/1/2011 | 16 | N/A | 20.6 | 21.0 | 21.1 | 21.1 | 21.1 | 20.8 | 20.7 |
| 8/1/2011 | 17 | N/A | 20.7 | 21.0 | 21.1 | 21.1 | 21.1 | 20.9 | 20.7 |
| 8/1/2011 | 18 | N/A | 20.7 | 20.9 | 21.1 | 21.0 | 21.1 | 20.9 | 20.8 |
| 8/1/2011 | 19 | N/A | 20.7 | 20.7 | 20.9 | 20.9 | 20.9 | 20.8 | 20.7 |
| 8/1/2011 | 20 | N/A | 20.6 | 20.5 | 20.7 | 20.7 | 20.7 | 20.8 | 20.7 |
| 8/1/2011 | 21 | N/A | 20.5 | 20.4 | 20.6 | 20.5 | 20.5 | 20.7 | 20.6 |
| 8/1/2011 | 22 | N/A | 20.3 | 20.3 | 20.5 | 20.4 | 20.4 | 20.6 | 20.3 |
| 8/1/2011 | 23 | N/A | 20.1 | 20.2 | 20.4 | 20.3 | 20.3 | 20.5 | 20.2 |
| 8/2/2011 | 1 | N/A | 20.0 | 20.0 | 20.2 | 20.1 | 20.1 | 20.4 | 20.1 |
| 8/2/2011 | 2 | N/A | 20.0 | 19.9 | 20.1 | 20.0 | 20.0 | 20.3 | 20.1 |
| 8/2/2011 | 3 | N/A | 20.0 | 19.9 | 20.0 | 20.0 | 19.9 | 20.3 | 20.1 |
| 8/2/2011 | 4 | N/A | 20.0 | 19.8 | 20.0 | 19.9 | 19.9 | 20.2 | 20.0 |
| 8/2/2011 | 5 | N/A | 20.0 | 19.8 | 19.9 | 19.8 | 19.8 | 20.2 | 20.0 |
| 8/2/2011 | 6 | N/A | 19.9 | 19.7 | 19.8 | 19.8 | 19.7 | 20.2 | 20.0 |
| 8/2/2011 | 7 | N/A | 19.9 | 19.7 | 19.8 | 19.8 | 19.7 | 20.1 | 20.0 |
| 8/2/2011 | 8 | N/A | 19.9 | 19.7 | 19.8 | 19.8 | 19.7 | 20.1 | 19.9 |
| 8/2/2011 | 9 | N/A | 19.9 | 19.8 | 19.9 | 19.8 | 19.8 | 20.1 | 19.9 |
| 8/2/2011 | 10 | N/A | 19.9 | 20.1 | 20.0 | 19.9 | 19.9 | 20.1 | 19.9 |
| 8/2/2011 | 11 | N/A | 19.9 | 20.4 | 20.3 | 20.3 | 20.3 | 20.1 | 19.9 |
| 8/2/2011 | 12 | N/A | 20.0 | 20.3 | 20.5 | 20.4 | 20.5 | 20.2 | 19.9 |
| 8/2/2011 | 13 | N/A | 20.0 | 20.2 | 20.4 | 20.3 | 20.4 | 20.2 | 20.0 |
| 8/2/2011 | 14 | N/A | 20.2 | 20.4 | 20.5 | 20.4 | 20.4 | 20.3 | 20.0 |
| 8/2/2011 | 15 | N/A | 20.1 | 20.9 | 20.9 | 20.8 | 20.8 | 20.3 | 20.1 |
| 8/2/2011 | 16 | N/A | 20.2 | 21.0 | 21.2 | 21.1 | 21.2 | 20.3 | 20.2 |
| 8/2/2011 | 17 | N/A | 20.3 | 20.7 | 21.0 | 21.0 | 21.1 | 20.4 | 20.2 |
| 8/2/2011 | 18 | N/A | 20.3 | 20.6 | 20.7 | 20.7 | 20.7 | 20.4 | 20.3 |
| 8/2/2011 | 19 | N/A | 20.3 | 20.5 | 20.6 | 20.6 | 20.5 | 20.4 | 20.2 |
| 8/2/2011 | 20 | N/A | 20.1 | 20.3 | 20.5 | 20.4 | 20.4 | 20.5 | 20.3 |
| 8/2/2011 | 21 | N/A | 20.2 | 20.1 | 20.3 | 20.3 | 20.3 | 20.5 | 20.3 |
| 8/2/2011 | 22 | N/A | 20.1 | 20.1 | 20.2 | 20.2 | 20.2 | 20.5 | 20.4 |
| 8/2/2011 | 23 | N/A | 20.2 | 20.1 | 20.2 | 20.2 | 20.1 | 20.5 | 20.4 |
| 8/2/2011 | 24 | N/A | 20.1 | 20.1 | 20.3 | 20.2 | 20.2 | 20.4 | 20.2 |
| 8/3/2011 | 1 | N/A | 20.3 | 20.1 | 20.2 | 20.1 | 20.1 | 20.6 | 20.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/3/2011 | 2 | N/A | 20.4 | 20.1 | 20.2 | 20.1 | 20.1 | 20.6 | 20.4 |
| 8/3/2011 | 3 | N/A | 20.3 | 20.0 | 20.1 | 20.1 | 20.0 | 20.6 | 20.4 |
| 8/3/2011 | 4 | N/A | 20.3 | 19.9 | 20.1 | 20.0 | 20.0 | 20.6 | 20.4 |
| 8/3/2011 | 5 | N/A | 20.3 | 20.0 | 20.0 | 20.0 | 19.9 | 20.6 | 20.4 |
| 8/3/2011 | 6 | N/A | 20.3 | 19.9 | 20.0 | 20.0 | 19.9 | 20.6 | 20.4 |
| 8/3/2011 | 7 | N/A | 20.3 | 19.9 | 20.0 | 20.0 | 19.9 | 20.6 | 20.4 |
| 8/3/2011 | 8 | N/A | 20.3 | 20.1 | 20.1 | 20.0 | 20.0 | 20.5 | 20.4 |
| 8/3/2011 | 9 | N/A | 20.3 | 20.4 | 20.3 | 20.2 | 20.2 | 20.5 | 20.4 |
| 8/3/2011 | 10 | N/A | 20.3 | 20.7 | 20.6 | 20.6 | 20.5 | 20.6 | 20.4 |
| 8/3/2011 | 11 | N/A | 20.4 | 21.0 | 21.0 | 20.9 | 20.9 | 20.6 | 20.5 |
| 8/3/2011 | 12 | N/A | 20.5 | 21.3 | 21.3 | 21.2 | 21.3 | 20.6 | 20.5 |
| 8/3/2011 | 13 | N/A | 20.5 | 21.5 | 21.6 | 21.6 | 21.6 | 20.7 | 20.6 |
| 8/3/2011 | 14 | N/A | 20.5 | 21.7 | 21.8 | 21.8 | 21.8 | 20.7 | 20.7 |
| 8/3/2011 | 15 | N/A | 20.5 | 21.7 | 22.0 | 21.9 | 22.0 | 20.8 | 20.7 |
| 8/3/2011 | 16 | N/A | 20.4 | 21.7 | 22.0 | 21.9 | 22.0 | 20.8 | 20.8 |
| 8/3/2011 | 17 | N/A | 20.0 | 21.3 | 21.8 | 21.8 | 21.9 | 20.9 | 20.7 |
| 8/3/2011 | 18 | N/A | 19.8 | 21.2 | 21.4 | 21.4 | 21.5 | 20.9 | 20.6 |
| 8/3/2011 | 19 | N/A | 19.9 | 20.9 | 21.3 | 21.3 | 21.3 | 20.8 | 20.4 |
| 8/3/2011 | 20 | N/A | 19.7 | 20.6 | 20.9 | 20.9 | 20.9 | 20.7 | 20.4 |
| 8/3/2011 | 21 | N/A | 19.6 | 20.3 | 20.7 | 20.6 | 20.6 | 20.7 | 20.5 |
| 8/3/2011 | 22 | N/A | 19.8 | 20.2 | 20.4 | 20.4 | 20.4 | 20.6 | 20.5 |
| 8/3/2011 | 23 | N/A | 20.0 | 20.2 | 20.4 | 20.3 | 20.3 | 20.6 | 20.6 |
| 8/3/2011 | 24 | N/A | 20.4 | 20.1 | 20.2 | 20.1 | 20.1 | 20.5 | 20.4 |
| 8/4/2011 | 1 | N/A | 19.6 | 20.2 | 20.3 | 20.2 | 20.2 | 20.5 | 20.5 |
| 8/4/2011 | 2 | N/A | 19.8 | 20.1 | 20.3 | 20.2 | 20.2 | 20.5 | 20.5 |
| 8/4/2011 | 3 | N/A | 19.8 | 20.0 | 20.2 | 20.1 | 20.1 | 20.6 | 20.6 |
| 8/4/2011 | 4 | N/A | 20.1 | 20.0 | 20.1 | 20.0 | 20.0 | 20.6 | 20.5 |
| 8/4/2011 | 5 | N/A | 20.3 | 20.0 | 20.2 | 20.1 | 20.0 | 20.6 | 20.5 |
| 8/4/2011 | 6 | N/A | 20.3 | 20.0 | 20.1 | 20.0 | 20.0 | 20.6 | 20.5 |
| 8/4/2011 | 7 | N/A | 20.3 | 20.0 | 20.1 | 20.1 | 20.0 | 20.7 | 20.5 |
| 8/4/2011 | 8 | N/A | 20.4 | 20.2 | 20.2 | 20.1 | 20.1 | 20.7 | 20.5 |
| 8/4/2011 | 9 | N/A | 20.5 | 20.5 | 20.4 | 20.4 | 20.3 | 20.7 | 20.6 |
| 8/4/2011 | 10 | N/A | 20.6 | 20.9 | 20.8 | 20.7 | 20.7 | 20.8 | 20.6 |
| 8/4/2011 | 11 | N/A | 20.7 | 21.2 | 21.2 | 21.1 | 21.1 | 20.9 | 20.7 |
| 8/4/2011 | 12 | N/A | 20.8 | 21.4 | 21.5 | 21.5 | 21.5 | 21.0 | 20.8 |
| 8/4/2011 | 13 | N/A | 20.9 | 21.5 | 21.7 | 21.7 | 21.7 | 21.1 | 20.9 |
| 8/4/2011 | 14 | N/A | 21.1 | 21.6 | 21.8 | 21.8 | 21.9 | 21.1 | 21.0 |
| 8/4/2011 | 15 | N/A | 21.1 | 21.7 | 21.9 | 21.8 | 21.9 | 21.2 | 21.1 |
| 8/4/2011 | 16 | N/A | 21.2 | 21.7 | 21.9 | 21.9 | 21.9 | 21.3 | 21.2 |
| 8/4/2011 | 17 | N/A | 21.3 | 21.6 | 21.8 | 21.8 | 21.8 | 21.4 | 21.3 |
| 8/4/2011 | 18 | N/A | 21.4 | 21.6 | 21.7 | 21.7 | 21.7 | 21.4 | 21.4 |
| 8/4/2011 | 19 | N/A | 21.4 | 21.4 | 21.7 | 21.6 | 21.6 | 21.4 | 21.4 |
| 8/4/2011 | 20 | N/A | 21.4 | 21.2 | 21.4 | 21.4 | 21.4 | 21.4 | 21.4 |
| 8/4/2011 | 21 | N/A | 21.4 | 21.2 | 21.3 | 21.3 | 21.2 | 21.4 | 21.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/4/2011 | 22 | N/A | 21.3 | 21.1 | 21.3 | 21.2 | 21.2 | 21.4 | 21.4 |
| 8/4/2011 | 23 | N/A | 21.2 | 21.1 | 21.3 | 21.2 | 21.2 | 21.5 | 21.3 |
| 8/4/2011 | 24 | N/A | 19.5 | 20.1 | 20.3 | 20.2 | 20.2 | 20.6 | 20.4 |
| 8/5/2011 | 1 | N/A | 21.2 | 21.0 | 21.2 | 21.1 | 21.1 | 21.5 | 21.2 |
| 8/5/2011 | 2 | N/A | 21.1 | 20.9 | 21.1 | 21.1 | 21.0 | 21.4 | 21.2 |
| 8/5/2011 | 3 | N/A | 21.1 | 20.9 | 21.1 | 21.0 | 21.0 | 21.4 | 21.2 |
| 8/5/2011 | 4 | N/A | 21.1 | 20.8 | 21.0 | 20.9 | 20.9 | 21.4 | 21.2 |
| 8/5/2011 | 5 | N/A | 21.0 | 20.8 | 20.9 | 20.9 | 20.8 | 21.3 | 21.2 |
| 8/5/2011 | 6 | N/A | 21.0 | 20.7 | 20.9 | 20.8 | 20.8 | 21.3 | 21.2 |
| 8/5/2011 | 7 | N/A | 21.0 | 20.8 | 20.9 | 20.8 | 20.8 | 21.3 | 21.1 |
| 8/5/2011 | 8 | N/A | 21.0 | 20.9 | 21.0 | 20.9 | 20.9 | 21.2 | 21.1 |
| 8/5/2011 | 9 | N/A | 20.9 | 21.0 | 21.1 | 21.0 | 21.0 | 21.2 | 21.0 |
| 8/5/2011 | 10 | N/A | 20.9 | 21.2 | 21.3 | 21.2 | 21.2 | 21.3 | 21.0 |
| 8/5/2011 | 11 | N/A | 21.0 | 21.3 | 21.4 | 21.4 | 21.4 | 21.3 | 21.1 |
| 8/5/2011 | 12 | N/A | 21.0 | 21.4 | 21.6 | 21.5 | 21.6 | 21.4 | 21.1 |
| 8/5/2011 | 13 | N/A | 21.1 | 21.6 | 21.7 | 21.7 | 21.7 | 21.5 | 21.2 |
| 8/5/2011 | 14 | N/A | 21.2 | 21.7 | 21.8 | 21.8 | 21.8 | 21.5 | 21.3 |
| 8/5/2011 | 15 | N/A | 21.3 | 21.7 | 21.9 | 21.8 | 21.9 | 21.6 | 21.4 |
| 8/5/2011 | 16 | N/A | 21.4 | 21.7 | 21.9 | 21.9 | 21.9 | 21.6 | 21.5 |
| 8/5/2011 | 17 | N/A | 21.5 | 21.7 | 21.8 | 21.8 | 21.8 | 21.7 | 21.6 |
| 8/5/2011 | 18 | N/A | 21.6 | 21.7 | 21.8 | 21.8 | 21.8 | 21.7 | 21.7 |
| 8/5/2011 | 19 | N/A | 21.5 | 21.6 | 21.8 | 21.7 | 21.7 | 21.7 | 21.6 |
| 8/5/2011 | 20 | N/A | 21.5 | 21.4 | 21.7 | 21.6 | 21.6 | 21.7 | 21.7 |
| 8/5/2011 | 21 | N/A | 21.5 | 21.4 | 21.5 | 21.5 | 21.4 | 21.6 | 21.7 |
| 8/5/2011 | 22 | N/A | 21.5 | 21.3 | 21.5 | 21.4 | 21.4 | 21.6 | 21.6 |
| 8/5/2011 | 23 | N/A | 21.4 | 21.3 | 21.5 | 21.4 | 21.4 | 21.6 | 21.5 |
| 8/5/2011 | 24 | N/A | 21.2 | 21.0 | 21.2 | 21.1 | 21.1 | 21.5 | 21.3 |
| 8/6/2011 | 1 | N/A | 21.2 | 21.1 | 21.3 | 21.2 | 21.2 | 21.6 | 21.4 |
| 8/6/2011 | 2 | N/A | 21.2 | 21.1 | 21.2 | 21.2 | 21.1 | 21.5 | 21.3 |
| 8/6/2011 | 3 | N/A | 21.2 | 21.0 | 21.1 | 21.1 | 21.0 | 21.5 | 21.3 |
| 8/6/2011 | 4 | N/A | 21.1 | 20.9 | 21.1 | 21.0 | 21.0 | 21.4 | 21.2 |
| 8/6/2011 | 5 | N/A | 21.1 | 20.9 | 21.0 | 21.0 | 20.9 | 21.4 | 21.2 |
| 8/6/2011 | 6 | N/A | 21.0 | 20.8 | 21.0 | 20.9 | 20.8 | 21.3 | 21.1 |
| 8/6/2011 | 7 | N/A | 20.9 | 20.8 | 20.9 | 20.8 | 20.8 | 21.3 | 21.0 |
| 8/6/2011 | 8 | N/A | 20.9 | 20.8 | 20.9 | 20.9 | 20.8 | 21.2 | 21.0 |
| 8/6/2011 | 9 | N/A | 20.9 | 20.9 | 21.0 | 21.0 | 20.9 | 21.2 | 21.0 |
| 8/6/2011 | 10 | N/A | 20.9 | 21.1 | 21.2 | 21.2 | 21.1 | 21.2 | 21.0 |
| 8/6/2011 | 11 | N/A | 20.9 | 21.3 | 21.4 | 21.4 | 21.4 | 21.3 | 21.0 |
| 8/6/2011 | 12 | N/A | 21.0 | 21.4 | 21.6 | 21.5 | 21.6 | 21.3 | 21.1 |
| 8/6/2011 | 13 | N/A | 21.0 | 21.5 | 21.7 | 21.6 | 21.7 | 21.4 | 21.1 |
| 8/6/2011 | 14 | N/A | 21.1 | 21.6 | 21.7 | 21.7 | 21.8 | 21.4 | 21.2 |
| 8/6/2011 | 15 | N/A | 21.2 | 21.6 | 21.8 | 21.8 | 21.8 | 21.5 | 21.3 |
| 8/6/2011 | 16 | N/A | 21.3 | 21.7 | 21.8 | 21.8 | 21.8 | 21.5 | 21.4 |
| 8/6/2011 | 17 | N/A | 21.3 | 21.6 | 21.8 | 21.7 | 21.8 | 21.5 | 21.5 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/6/2011 | 18 | N/A | 21.4 | 21.6 | 21.7 | 21.7 | 21.7 | 21.5 | 21.5 |
| 8/6/2011 | 19 | N/A | 21.4 | 21.5 | 21.7 | 21.6 | 21.6 | 21.5 | 21.5 |
| 8/6/2011 | 20 | N/A | 21.4 | 21.3 | 21.6 | 21.5 | 21.5 | 21.5 | 21.5 |
| 8/6/2011 | 21 | N/A | 21.4 | 21.3 | 21.4 | 21.4 | 21.4 | 21.5 | 21.6 |
| 8/6/2011 | 22 | N/A | 21.3 | 21.2 | 21.3 | 21.3 | 21.3 | 21.5 | 21.5 |
| 8/6/2011 | 23 | N/A | 21.3 | 21.1 | 21.3 | 21.2 | 21.2 | 21.5 | 21.4 |
| 8/6/2011 | 24 | N/A | 21.3 | 21.2 | 21.4 | 21.3 | 21.3 | 21.6 | 21.4 |
| 8/7/2011 | 1 | N/A | 21.1 | 20.9 | 21.1 | 21.0 | 21.0 | 21.4 | 21.2 |
| 8/7/2011 | 2 | N/A | 21.0 | 20.8 | 21.0 | 20.9 | 20.9 | 21.4 | 21.1 |
| 8/7/2011 | 3 | N/A | 20.9 | 20.7 | 20.9 | 20.8 | 20.8 | 21.3 | 21.1 |
| 8/7/2011 | 4 | N/A | 20.9 | 20.7 | 20.8 | 20.7 | 20.7 | 21.3 | 21.0 |
| 8/7/2011 | 5 | N/A | 20.8 | 20.7 | 20.8 | 20.7 | 20.7 | 21.2 | 21.0 |
| 8/7/2011 | 6 | N/A | 20.8 | 20.6 | 20.7 | 20.7 | 20.7 | 21.2 | 20.9 |
| 8/7/2011 | 7 | N/A | 20.7 | 20.6 | 20.7 | 20.7 | 20.6 | 21.1 | 20.9 |
| 8/7/2011 | 8 | N/A | 20.7 | 20.7 | 20.8 | 20.7 | 20.7 | 21.0 | 20.8 |
| 8/7/2011 | 9 | N/A | 20.7 | 20.8 | 20.9 | 20.8 | 20.8 | 21.0 | 20.8 |
| 8/7/2011 | 10 | N/A | 20.7 | 21.0 | 21.1 | 21.0 | 21.0 | 21.1 | 20.8 |
| 8/7/2011 | 11 | N/A | 20.8 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 20.9 |
| 8/7/2011 | 12 | N/A | 20.9 | 21.3 | 21.4 | 21.4 | 21.4 | 21.3 | 21.0 |
| 8/7/2011 | 13 | N/A | 21.0 | 21.5 | 21.6 | 21.6 | 21.6 | 21.3 | 21.1 |
| 8/7/2011 | 14 | N/A | 21.1 | 21.6 | 21.7 | 21.7 | 21.7 | 21.4 | 21.2 |
| 8/7/2011 | 15 | N/A | 21.3 | 21.6 | 21.8 | 21.7 | 21.8 | 21.5 | 21.4 |
| 8/7/2011 | 16 | N/A | 21.3 | 21.7 | 21.8 | 21.8 | 21.9 | 21.6 | 21.4 |
| 8/7/2011 | 17 | N/A | 21.4 | 21.6 | 21.8 | 21.7 | 21.8 | 21.6 | 21.5 |
| 8/7/2011 | 18 | N/A | 21.4 | 21.6 | 21.7 | 21.7 | 21.7 | 21.6 | 21.5 |
| 8/7/2011 | 19 | N/A | 21.4 | 21.4 | 21.7 | 21.6 | 21.6 | 21.5 | 21.6 |
| 8/7/2011 | 20 | N/A | 21.4 | 21.3 | 21.5 | 21.5 | 21.4 | 21.5 | 21.5 |
| 8/7/2011 | 21 | N/A | 21.3 | 21.3 | 21.5 | 21.4 | 21.4 | 21.5 | 21.5 |
| 8/7/2011 | 22 | N/A | 21.2 | 21.2 | 21.3 | 21.3 | 21.3 | 21.4 | 21.4 |
| 8/7/2011 | 23 | N/A | 21.2 | 21.1 | 21.2 | 21.2 | 21.1 | 21.4 | 21.2 |
| 8/7/2011 | 24 | N/A | 21.2 | 21.0 | 21.2 | 21.1 | 21.1 | 21.5 | 21.3 |
| 8/8/2011 | 1 | N/A | 21.0 | 20.9 | 21.0 | 21.0 | 20.9 | 21.3 | 21.1 |
| 8/8/2011 | 2 | N/A | 21.0 | 20.8 | 20.9 | 20.9 | 20.8 | 21.3 | 21.1 |
| 8/8/2011 | 3 | N/A | 20.9 | 20.8 | 20.9 | 20.8 | 20.8 | 21.2 | 21.1 |
| 8/8/2011 | 4 | N/A | 20.8 | 20.7 | 20.9 | 20.8 | 20.8 | 21.2 | 21.0 |
| 8/8/2011 | 5 | N/A | 20.8 | 20.7 | 20.8 | 20.8 | 20.7 | 21.1 | 20.9 |
| 8/8/2011 | 6 | N/A | 20.7 | 20.7 | 20.8 | 20.7 | 20.7 | 21.1 | 20.9 |
| 8/8/2011 | 7 | N/A | 20.7 | 20.6 | 20.7 | 20.7 | 20.7 | 21.1 | 20.8 |
| 8/8/2011 | 8 | N/A | 20.7 | 20.7 | 20.8 | 20.7 | 20.7 | 21.0 | 20.8 |
| 8/8/2011 | 9 | N/A | 20.7 | 20.8 | 20.9 | 20.8 | 20.8 | 21.0 | 20.8 |
| 8/8/2011 | 10 | N/A | 20.7 | 20.9 | 21.0 | 20.9 | 20.9 | 21.0 | 20.8 |
| 8/8/2011 | 11 | N/A | 20.8 | 21.0 | 21.1 | 21.0 | 21.0 | 21.1 | 20.9 |
| 8/8/2011 | 12 | N/A | 20.9 | 21.3 | 21.4 | 21.3 | 21.3 | 21.1 | 20.9 |
| 8/8/2011 | 13 | N/A | 21.0 | 21.7 | 21.7 | 21.7 | 21.7 | 21.2 | 21.0 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/8/2011 | 14 | N/A | 21.1 | 21.8 | 21.9 | 21.9 | 22.0 | 21.3 | 21.1 |
| 8/8/2011 | 15 | N/A | 21.2 | 21.9 | 22.0 | 22.0 | 22.1 | 21.3 | 21.3 |
| 8/8/2011 | 16 | N/A | 21.3 | 21.8 | 22.0 | 22.0 | 22.1 | 21.4 | 21.4 |
| 8/8/2011 | 17 | N/A | 21.4 | 21.7 | 21.9 | 21.8 | 21.9 | 21.5 | 21.4 |
| 8/8/2011 | 18 | N/A | 21.4 | 21.6 | 21.8 | 21.7 | 21.7 | 21.4 | 21.4 |
| 8/8/2011 | 19 | N/A | 21.3 | 21.4 | 21.7 | 21.6 | 21.6 | 21.4 | 21.4 |
| 8/8/2011 | 20 | N/A | 21.3 | 21.1 | 21.4 | 21.3 | 21.3 | 21.4 | 21.4 |
| 8/8/2011 | 21 | N/A | 21.4 | 21.0 | 21.2 | 21.1 | 21.1 | 21.4 | 21.5 |
| 8/8/2011 | 22 | N/A | 21.3 | 20.9 | 21.1 | 21.0 | 21.0 | 21.4 | 21.4 |
| 8/8/2011 | 23 | N/A | 21.1 | 20.8 | 21.0 | 20.9 | 20.9 | 21.4 | 21.2 |
| 8/8/2011 | 24 | N/A | 21.1 | 21.0 | 21.1 | 21.1 | 21.0 | 21.4 | 21.2 |
| 8/9/2011 | 1 | N/A | 20.8 | 20.5 | 20.7 | 20.6 | 20.6 | 21.3 | 21.0 |
| 8/9/2011 | 2 | N/A | 20.8 | 20.3 | 20.5 | 20.5 | 20.4 | 21.3 | 21.0 |
| 8/9/2011 | 3 | N/A | 20.8 | 20.3 | 20.4 | 20.3 | 20.3 | 21.2 | 20.9 |
| 8/9/2011 | 4 | N/A | 20.8 | 20.2 | 20.3 | 20.3 | 20.2 | 21.2 | 20.9 |
| 8/9/2011 | 5 | N/A | 20.7 | 20.1 | 20.2 | 20.2 | 20.1 | 21.1 | 20.9 |
| 8/9/2011 | 6 | N/A | 20.7 | 20.1 | 20.2 | 20.1 | 20.0 | 21.1 | 20.8 |
| 8/9/2011 | 7 | N/A | 20.6 | 20.1 | 20.1 | 20.1 | 20.0 | 21.0 | 20.8 |
| 8/9/2011 | 8 | N/A | 20.6 | 20.3 | 20.2 | 20.1 | 20.1 | 21.0 | 20.8 |
| 8/9/2011 | 9 | N/A | 20.7 | 20.6 | 20.4 | 20.3 | 20.3 | 21.0 | 20.8 |
| 8/9/2011 | 10 | N/A | 20.7 | 20.9 | 20.7 | 20.7 | 20.6 | 21.1 | 20.8 |
| 8/9/2011 | 11 | N/A | 20.7 | 21.3 | 21.2 | 21.1 | 21.1 | 21.1 | 20.8 |
| 8/9/2011 | 12 | N/A | 20.7 | 21.6 | 21.6 | 21.5 | 21.6 | 21.2 | 20.9 |
| 8/9/2011 | 13 | N/A | 20.9 | 21.8 | 21.9 | 21.8 | 21.9 | 21.2 | 21.0 |
| 8/9/2011 | 14 | N/A | 21.0 | 21.9 | 22.1 | 22.0 | 22.1 | 21.3 | 21.1 |
| 8/9/2011 | 15 | N/A | 21.1 | 21.9 | 22.1 | 22.1 | 22.2 | 21.3 | 21.2 |
| 8/9/2011 | 16 | N/A | 21.2 | 21.9 | 22.1 | 22.1 | 22.2 | 21.3 | 21.2 |
| 8/9/2011 | 17 | N/A | 21.3 | 21.8 | 22.0 | 22.0 | 22.1 | 21.4 | 21.3 |
| 8/9/2011 | 18 | N/A | 21.3 | 21.6 | 21.8 | 21.8 | 21.8 | 21.4 | 21.4 |
| 8/9/2011 | 19 | N/A | 21.4 | 21.3 | 21.6 | 21.6 | 21.6 | 21.4 | 21.4 |
| 8/9/2011 | 20 | N/A | 21.3 | 21.0 | 21.4 | 21.3 | 21.3 | 21.5 | 21.4 |
| 8/9/2011 | 21 | N/A | 21.3 | 20.8 | 21.1 | 21.0 | 21.1 | 21.5 | 21.4 |
| 8/9/2011 | 22 | N/A | 21.3 | 20.6 | 20.8 | 20.7 | 20.7 | 21.5 | 21.4 |
| 8/9/2011 | 23 | N/A | 21.3 | 20.6 | 20.6 | 20.5 | 20.5 | 21.5 | 21.4 |
| 8/9/2011 | 24 | N/A | 20.9 | 20.7 | 20.8 | 20.7 | 20.7 | 21.4 | 21.1 |
| 8/10/2011 | 1 | N/A | 21.1 | 20.4 | 20.5 | 20.4 | 20.4 | 21.5 | 21.3 |
| 8/10/2011 | 2 | N/A | 21.1 | 20.3 | 20.4 | 20.3 | 20.2 | 21.4 | 21.2 |
| 8/10/2011 | 3 | N/A | 21.0 | 20.2 | 20.3 | 20.2 | 20.2 | 21.3 | 21.1 |
| 8/10/2011 | 4 | N/A | 20.9 | 20.2 | 20.2 | 20.1 | 20.1 | 21.3 | 21.0 |
| 8/10/2011 | 5 | N/A | 20.8 | 20.1 | 20.1 | 20.0 | 20.0 | 21.2 | 21.0 |
| 8/10/2011 | 6 | N/A | 20.8 | 20.0 | 20.0 | 19.9 | 19.9 | 21.1 | 20.9 |
| 8/10/2011 | 7 | N/A | 20.7 | 20.0 | 20.0 | 19.9 | 19.8 | 21.0 | 20.8 |
| 8/10/2011 | 8 | N/A | 20.7 | 20.1 | 20.0 | 19.9 | 19.8 | 21.0 | 20.7 |
| 8/10/2011 | 9 | N/A | 20.6 | 20.3 | 20.2 | 20.1 | 20.0 | 21.0 | 20.7 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/10/2011 | 10 | N/A | 20.6 | 20.7 | 20.4 | 20.4 | 20.3 | 21.0 | 20.7 |
| 8/10/2011 | 11 | N/A | 20.6 | 21.2 | 21.0 | 20.9 | 20.8 | 21.0 | 20.7 |
| 8/10/2011 | 12 | N/A | 20.6 | 21.5 | 21.4 | 21.3 | 21.4 | 21.0 | 20.7 |
| 8/10/2011 | 13 | N/A | 20.7 | 21.8 | 21.8 | 21.7 | 21.8 | 21.0 | 20.8 |
| 8/10/2011 | 14 | N/A | 20.7 | 21.8 | 22.0 | 22.0 | 22.1 | 21.0 | 20.8 |
| 8/10/2011 | 15 | N/A | 20.8 | 21.8 | 22.1 | 22.0 | 22.2 | 21.0 | 20.9 |
| 8/10/2011 | 16 | N/A | 20.9 | 21.8 | 22.0 | 22.0 | 22.1 | 21.1 | 21.0 |
| 8/10/2011 | 17 | N/A | 21.0 | 21.6 | 21.9 | 21.9 | 22.0 | 21.1 | 21.0 |
| 8/10/2011 | 18 | N/A | 21.0 | 21.3 | 21.6 | 21.5 | 21.6 | 21.1 | 21.1 |
| 8/10/2011 | 19 | N/A | 21.0 | 20.9 | 21.3 | 21.2 | 21.2 | 21.1 | 21.1 |
| 8/10/2011 | 20 | N/A | 21.0 | 20.6 | 20.9 | 20.8 | 20.9 | 21.1 | 21.1 |
| 8/10/2011 | 21 | N/A | 20.9 | 20.4 | 20.6 | 20.5 | 20.5 | 21.1 | 21.1 |
| 8/10/2011 | 22 | N/A | 20.9 | 20.3 | 20.4 | 20.3 | 20.3 | 21.2 | 21.1 |
| 8/10/2011 | 23 | N/A | 20.8 | 20.2 | 20.3 | 20.2 | 20.2 | 21.2 | 21.0 |
| 8/10/2011 | 24 | N/A | 21.2 | 20.5 | 20.6 | 20.5 | 20.4 | 21.5 | 21.3 |
| 8/11/2011 | 1 | N/A | 20.7 | 20.1 | 20.1 | 20.1 | 20.0 | 21.1 | 20.9 |
| 8/11/2011 | 2 | N/A | 20.7 | 20.0 | 20.1 | 20.0 | 20.0 | 21.1 | 20.8 |
| 8/11/2011 | 3 | N/A | 20.6 | 20.0 | 20.0 | 19.9 | 19.9 | 21.0 | 20.8 |
| 8/11/2011 | 4 | N/A | 20.6 | 19.9 | 19.9 | 19.9 | 19.8 | 20.9 | 20.7 |
| 8/11/2011 | 5 | N/A | 20.5 | 19.8 | 19.9 | 19.8 | 19.7 | 20.9 | 20.7 |
| 8/11/2011 | 6 | N/A | 20.5 | 19.8 | 19.8 | 19.7 | 19.7 | 20.8 | 20.6 |
| 8/11/2011 | 7 | N/A | 20.4 | 19.8 | 19.7 | 19.7 | 19.6 | 20.8 | 20.6 |
| 8/11/2011 | 8 | N/A | 20.4 | 19.9 | 19.8 | 19.7 | 19.7 | 20.8 | 20.5 |
| 8/11/2011 | 9 | N/A | 20.4 | 20.2 | 20.0 | 19.9 | 19.9 | 20.8 | 20.5 |
| 8/11/2011 | 10 | N/A | 20.4 | 20.6 | 20.3 | 20.2 | 20.2 | 20.8 | 20.5 |
| 8/11/2011 | 11 | N/A | 20.4 | 21.1 | 20.8 | 20.7 | 20.7 | 20.8 | 20.5 |
| 8/11/2011 | 12 | N/A | 20.4 | 21.4 | 21.3 | 21.2 | 21.3 | 20.8 | 20.5 |
| 8/11/2011 | 13 | N/A | 20.5 | 21.7 | 21.7 | 21.7 | 21.7 | 20.9 | 20.6 |
| 8/11/2011 | 14 | N/A | 20.6 | 21.8 | 22.0 | 21.9 | 22.1 | 20.9 | 20.7 |
| 8/11/2011 | 15 | N/A | 20.7 | 21.8 | 22.1 | 22.1 | 22.3 | 20.9 | 20.7 |
| 8/11/2011 | 16 | N/A | 20.8 | 21.7 | 22.2 | 22.1 | 22.3 | 20.9 | 20.8 |
| 8/11/2011 | 17 | N/A | 20.9 | 21.5 | 22.1 | 22.0 | 22.2 | 21.0 | 21.0 |
| 8/11/2011 | 18 | N/A | 21.0 | 21.3 | 21.9 | 21.8 | 21.9 | 21.0 | 21.0 |
| 8/11/2011 | 19 | N/A | 20.9 | 20.9 | 21.6 | 21.5 | 21.5 | 21.0 | 21.0 |
| 8/11/2011 | 20 | N/A | 20.9 | 20.7 | 21.3 | 21.2 | 21.2 | 21.0 | 21.0 |
| 8/11/2011 | 21 | N/A | 20.9 | 20.4 | 20.9 | 20.9 | 20.9 | 21.1 | 21.0 |
| 8/11/2011 | 22 | N/A | 20.8 | 20.2 | 20.7 | 20.6 | 20.6 | 21.1 | 21.0 |
| 8/11/2011 | 23 | N/A | 20.8 | 20.1 | 20.3 | 20.2 | 20.2 | 21.1 | 20.9 |
| 8/11/2011 | 24 | N/A | 20.8 | 20.2 | 20.2 | 20.1 | 20.1 | 21.2 | 20.9 |
| 8/12/2011 | 1 | N/A | 20.7 | 19.8 | 19.8 | 19.7 | 19.7 | 21.0 | 20.8 |
| 8/12/2011 | 2 | N/A | 20.6 | 19.8 | 19.7 | 19.6 | 19.6 | 21.0 | 20.7 |
| 8/12/2011 | 3 | N/A | 20.5 | 19.7 | 19.6 | 19.5 | 19.5 | 20.9 | 20.7 |
| 8/12/2011 | 4 | N/A | 20.4 | 19.7 | 19.5 | 19.5 | 19.4 | 20.8 | 20.6 |
| 8/12/2011 | 5 | N/A | 20.4 | 19.7 | 19.5 | 19.4 | 19.3 | 20.8 | 20.5 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/12/2011 | 6 | N/A | 20.3 | 19.6 | 19.4 | 19.4 | 19.3 | 20.7 | 20.5 |
| 8/12/2011 | 7 | N/A | 20.2 | 19.6 | 19.4 | 19.3 | 19.2 | 20.6 | 20.4 |
| 8/12/2011 | 8 | N/A | 20.2 | 19.8 | 19.4 | 19.3 | 19.3 | 20.6 | 20.4 |
| 8/12/2011 | 9 | N/A | 20.3 | 20.1 | 19.6 | 19.4 | 19.4 | 20.7 | 20.3 |
| 8/12/2011 | 10 | N/A | 20.3 | 20.6 | 19.9 | 19.7 | 19.7 | 20.7 | 20.4 |
| 8/12/2011 | 11 | N/A | 20.4 | 21.0 | 20.4 | 20.3 | 20.3 | 20.8 | 20.4 |
| 8/12/2011 | 12 | N/A | 20.5 | 21.4 | 21.2 | 21.1 | 21.1 | 20.8 | 20.5 |
| 8/12/2011 | 13 | N/A | 20.6 | 21.7 | 21.9 | 21.7 | 21.8 | 20.9 | 20.6 |
| 8/12/2011 | 14 | N/A | 20.7 | 21.8 | 22.4 | 22.3 | 22.4 | 20.9 | 20.7 |
| 8/12/2011 | 15 | N/A | 20.9 | 21.9 | 22.6 | 22.5 | 22.7 | 21.0 | 20.8 |
| 8/12/2011 | 16 | N/A | 20.9 | 21.7 | 22.6 | 22.6 | 22.8 | 21.0 | 21.0 |
| 8/12/2011 | 17 | N/A | 21.0 | 21.6 | 22.5 | 22.5 | 22.7 | 21.0 | 21.1 |
| 8/12/2011 | 18 | N/A | 21.0 | 21.4 | 22.3 | 22.3 | 22.4 | 21.0 | 21.1 |
| 8/12/2011 | 19 | N/A | 21.0 | 21.1 | 22.0 | 21.9 | 22.0 | 21.0 | 21.1 |
| 8/12/2011 | 20 | N/A | 20.9 | 20.8 | 21.6 | 21.6 | 21.7 | 21.0 | 21.0 |
| 8/12/2011 | 21 | N/A | 20.9 | 20.6 | 21.2 | 21.1 | 21.2 | 21.0 | 21.0 |
| 8/12/2011 | 22 | N/A | 20.8 | 20.4 | 20.9 | 20.8 | 20.9 | 21.0 | 20.9 |
| 8/12/2011 | 23 | N/A | 20.6 | 20.3 | 20.6 | 20.5 | 20.6 | 21.0 | 20.7 |
| 8/12/2011 | 24 | N/A | 20.7 | 19.9 | 20.0 | 20.0 | 20.0 | 21.1 | 20.9 |
| 8/13/2011 | 1 | N/A | 19.8 | 20.1 | 20.2 | 20.2 | 20.2 | 20.8 | 20.4 |
| 8/13/2011 | 2 | N/A | 19.7 | 20.0 | 20.1 | 20.0 | 20.0 | 20.7 | 20.2 |
| 8/13/2011 | 3 | N/A | 19.5 | 19.7 | 19.9 | 19.9 | 19.8 | 20.6 | 20.2 |
| 8/13/2011 | 4 | N/A | 19.7 | 19.5 | 19.7 | 19.6 | 19.7 | 20.5 | 20.2 |
| 8/13/2011 | 5 | N/A | 19.7 | 19.4 | 19.4 | 19.3 | 19.4 | 20.4 | 20.2 |
| 8/13/2011 | 6 | N/A | 19.9 | 19.3 | 19.2 | 19.2 | 19.2 | 20.4 | 20.2 |
| 8/13/2011 | 7 | N/A | 19.9 | 19.3 | 19.1 | 19.0 | 19.0 | 20.4 | 20.2 |
| 8/13/2011 | 8 | N/A | 20.0 | 19.6 | 19.2 | 19.0 | 19.0 | 20.5 | 20.2 |
| 8/13/2011 | 9 | N/A | 20.0 | 20.0 | 19.3 | 19.2 | 19.2 | 20.5 | 20.2 |
| 8/13/2011 | 10 | N/A | 20.0 | 20.4 | 19.7 | 19.6 | 19.6 | 20.6 | 20.3 |
| 8/13/2011 | 11 | N/A | 20.0 | 21.0 | 20.3 | 20.2 | 20.2 | 20.6 | 20.3 |
| 8/13/2011 | 12 | N/A | 20.2 | 21.2 | 21.1 | 21.0 | 20.9 | 20.7 | 20.5 |
| 8/13/2011 | 13 | N/A | 20.3 | 21.5 | 21.8 | 21.7 | 21.7 | 20.7 | 20.5 |
| 8/13/2011 | 14 | N/A | 20.5 | 21.7 | 22.3 | 22.1 | 22.3 | 20.8 | 20.7 |
| 8/13/2011 | 15 | N/A | 20.4 | 21.8 | 22.5 | 22.4 | 22.6 | 20.8 | 20.8 |
| 8/13/2011 | 16 | N/A | 20.4 | 21.7 | 22.6 | 22.6 | 22.8 | 20.9 | 20.9 |
| 8/13/2011 | 17 | N/A | 20.3 | 21.5 | 22.5 | 22.4 | 22.6 | 20.9 | 20.9 |
| 8/13/2011 | 18 | N/A | 20.1 | 21.1 | 22.1 | 22.0 | 22.2 | 21.0 | 20.8 |
| 8/13/2011 | 19 | N/A | 20.2 | 20.6 | 21.5 | 21.5 | 21.5 | 21.0 | 20.9 |
| 8/13/2011 | 20 | N/A | 20.4 | 20.1 | 20.9 | 20.9 | 20.9 | 21.1 | 20.9 |
| 8/13/2011 | 21 | N/A | 20.5 | 19.9 | 20.3 | 20.3 | 20.3 | 21.1 | 20.9 |
| 8/13/2011 | 22 | N/A | 20.7 | 19.8 | 19.9 | 19.8 | 19.8 | 21.1 | 20.9 |
| 8/13/2011 | 23 | N/A | 20.7 | 19.9 | 19.7 | 19.6 | 19.6 | 21.1 | 20.9 |
| 8/13/2011 | 24 | N/A | 20.2 | 20.2 | 20.4 | 20.3 | 20.3 | 20.9 | 20.5 |
| 8/14/2011 | 1 | N/A | 20.7 | 19.9 | 19.6 | 19.6 | 19.5 | 21.0 | 20.8 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/14/2011 | 2 | N/A | 20.7 | 19.8 | 19.6 | 19.5 | 19.4 | 21.0 | 20.8 |
| 8/14/2011 | 3 | N/A | 20.6 | 19.8 | 19.6 | 19.5 | 19.4 | 21.0 | 20.7 |
| 8/14/2011 | 4 | N/A | 20.6 | 19.7 | 19.5 | 19.4 | 19.3 | 20.9 | 20.7 |
| 8/14/2011 | 5 | N/A | 20.5 | 19.6 | 19.3 | 19.3 | 19.2 | 20.9 | 20.7 |
| 8/14/2011 | 6 | N/A | 20.5 | 19.6 | 19.2 | 19.2 | 19.1 | 20.9 | 20.6 |
| 8/14/2011 | 7 | N/A | 20.4 | 19.6 | 19.2 | 19.1 | 19.0 | 20.9 | 20.6 |
| 8/14/2011 | 8 | N/A | 20.4 | 19.8 | 19.2 | 19.1 | 19.1 | 20.9 | 20.5 |
| 8/14/2011 | 9 | N/A | 20.4 | 20.0 | 19.4 | 19.2 | 19.2 | 20.9 | 20.4 |
| 8/14/2011 | 10 | N/A | 20.4 | 20.5 | 19.8 | 19.6 | 19.6 | 20.8 | 20.4 |
| 8/14/2011 | 11 | N/A | 20.4 | 21.0 | 20.2 | 20.1 | 20.1 | 20.8 | 20.5 |
| 8/14/2011 | 12 | N/A | 20.4 | 21.3 | 21.0 | 20.9 | 20.8 | 20.8 | 20.5 |
| 8/14/2011 | 13 | N/A | 20.5 | 21.4 | 21.7 | 21.5 | 21.6 | 20.8 | 20.6 |
| 8/14/2011 | 14 | N/A | 20.6 | 21.6 | 22.1 | 22.0 | 22.1 | 20.8 | 20.7 |
| 8/14/2011 | 15 | N/A | 20.7 | 21.6 | 22.3 | 22.3 | 22.4 | 20.9 | 20.7 |
| 8/14/2011 | 16 | N/A | 20.8 | 21.6 | 22.3 | 22.3 | 22.5 | 20.9 | 20.8 |
| 8/14/2011 | 17 | N/A | 20.9 | 21.4 | 22.2 | 22.1 | 22.3 | 21.0 | 20.9 |
| 8/14/2011 | 18 | N/A | 20.8 | 21.1 | 21.9 | 21.8 | 21.8 | 21.0 | 20.9 |
| 8/14/2011 | 19 | N/A | 20.8 | 20.7 | 21.5 | 21.4 | 21.4 | 21.1 | 21.0 |
| 8/14/2011 | 20 | N/A | 20.8 | 20.4 | 20.9 | 20.9 | 20.9 | 21.1 | 21.0 |
| 8/14/2011 | 21 | N/A | 20.7 | 20.2 | 20.4 | 20.3 | 20.3 | 21.2 | 20.9 |
| 8/14/2011 | 22 | N/A | 20.7 | 20.0 | 20.1 | 20.0 | 19.9 | 21.2 | 20.9 |
| 8/14/2011 | 23 | N/A | 20.7 | 19.9 | 19.8 | 19.7 | 19.7 | 21.1 | 20.8 |
| 8/14/2011 | 24 | N/A | 20.6 | 19.9 | 19.6 | 19.6 | 19.5 | 21.1 | 20.9 |
| 8/15/2011 | 1 | N/A | 20.6 | 19.9 | 19.6 | 19.5 | 19.4 | 21.0 | 20.7 |
| 8/15/2011 | 2 | N/A | 20.5 | 19.9 | 19.5 | 19.4 | 19.3 | 21.0 | 20.7 |
| 8/15/2011 | 3 | N/A | 20.5 | 19.8 | 19.5 | 19.4 | 19.3 | 20.9 | 20.6 |
| 8/15/2011 | 4 | N/A | 20.4 | 19.9 | 19.5 | 19.4 | 19.3 | 20.9 | 20.6 |
| 8/15/2011 | 5 | N/A | 20.4 | 19.9 | 19.5 | 19.5 | 19.3 | 20.8 | 20.5 |
| 8/15/2011 | 6 | N/A | 20.3 | 19.8 | 19.5 | 19.5 | 19.4 | 20.8 | 20.5 |
| 8/15/2011 | 7 | N/A | 20.3 | 19.8 | 19.5 | 19.4 | 19.3 | 20.8 | 20.4 |
| 8/15/2011 | 8 | N/A | 20.3 | 19.9 | 19.5 | 19.4 | 19.3 | 20.8 | 20.4 |
| 8/15/2011 | 9 | N/A | 20.3 | 20.1 | 19.6 | 19.4 | 19.4 | 20.9 | 20.4 |
| 8/15/2011 | 10 | N/A | 20.3 | 20.5 | 19.7 | 19.6 | 19.6 | 20.9 | 20.4 |
| 8/15/2011 | 11 | N/A | 20.4 | 20.9 | 20.2 | 20.0 | 20.0 | 20.9 | 20.4 |
| 8/15/2011 | 12 | N/A | 20.4 | 21.3 | 20.8 | 20.7 | 20.7 | 20.9 | 20.5 |
| 8/15/2011 | 13 | N/A | 20.5 | 21.5 | 21.5 | 21.4 | 21.4 | 20.9 | 20.6 |
| 8/15/2011 | 14 | N/A | 20.5 | 21.5 | 22.0 | 21.9 | 22.0 | 21.0 | 20.6 |
| 8/15/2011 | 15 | N/A | 20.5 | 21.3 | 22.2 | 22.1 | 22.3 | 21.0 | 20.7 |
| 8/15/2011 | 16 | N/A | 20.6 | 21.3 | 22.1 | 22.1 | 22.4 | 21.0 | 20.7 |
| 8/15/2011 | 17 | N/A | 20.6 | 21.1 | 21.8 | 21.7 | 22.0 | 21.1 | 20.8 |
| 8/15/2011 | 18 | N/A | 20.7 | 20.9 | 21.4 | 21.3 | 21.5 | 21.1 | 20.9 |
| 8/15/2011 | 19 | N/A | 20.8 | 20.6 | 21.1 | 21.0 | 21.0 | 21.2 | 20.9 |
| 8/15/2011 | 20 | N/A | 20.8 | 20.3 | 20.8 | 20.8 | 20.8 | 21.2 | 20.9 |
| 8/15/2011 | 21 | N/A | 20.7 | 20.1 | 20.4 | 20.3 | 20.4 | 21.3 | 20.9 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/15/2011 | 22 | N/A | 20.7 | 20.0 | 20.0 | 19.9 | 19.9 | 21.3 | 20.8 |
| 8/15/2011 | 23 | N/A | 20.7 | 19.9 | 19.7 | 19.6 | 19.6 | 21.2 | 20.8 |
| 8/15/2011 | 24 | N/A | 20.6 | 19.9 | 19.7 | 19.6 | 19.5 | 21.1 | 20.8 |
| 8/16/2011 | 1 | N/A | 20.6 | 19.7 | 19.4 | 19.3 | 19.2 | 21.1 | 20.7 |
| 8/16/2011 | 2 | N/A | 20.6 | 19.7 | 19.3 | 19.2 | 19.1 | 21.1 | 20.7 |
| 8/16/2011 | 3 | N/A | 20.5 | 19.7 | 19.2 | 19.1 | 19.1 | 21.0 | 20.7 |
| 8/16/2011 | 4 | N/A | 20.5 | 19.7 | 19.1 | 19.1 | 19.0 | 21.0 | 20.7 |
| 8/16/2011 | 5 | N/A | 20.4 | 19.7 | 19.1 | 19.0 | 18.9 | 21.0 | 20.6 |
| 8/16/2011 | 6 | N/A | 20.4 | 19.6 | 19.1 | 19.0 | 18.9 | 20.9 | 20.5 |
| 8/16/2011 | 7 | N/A | 20.3 | 19.6 | 19.1 | 19.0 | 18.9 | 20.9 | 20.5 |
| 8/16/2011 | 8 | N/A | 20.3 | 19.7 | 19.1 | 19.0 | 19.0 | 20.9 | 20.4 |
| 8/16/2011 | 9 | N/A | 20.3 | 20.1 | 19.2 | 19.1 | 19.1 | 20.9 | 20.4 |
| 8/16/2011 | 10 | N/A | 20.3 | 20.5 | 19.6 | 19.4 | 19.4 | 20.9 | 20.4 |
| 8/16/2011 | 11 | N/A | 20.3 | 20.9 | 20.1 | 19.9 | 19.9 | 20.9 | 20.4 |
| 8/16/2011 | 12 | N/A | 20.4 | 21.3 | 20.9 | 20.7 | 20.7 | 20.9 | 20.5 |
| 8/16/2011 | 13 | N/A | 20.4 | 21.5 | 21.6 | 21.5 | 21.5 | 20.8 | 20.5 |
| 8/16/2011 | 14 | N/A | 20.5 | 21.6 | 22.1 | 22.0 | 22.1 | 20.9 | 20.6 |
| 8/16/2011 | 15 | N/A | 20.6 | 21.6 | 22.3 | 22.3 | 22.5 | 21.0 | 20.7 |
| 8/16/2011 | 16 | N/A | 20.6 | 21.6 | 22.4 | 22.4 | 22.6 | 21.1 | 20.8 |
| 8/16/2011 | 17 | N/A | 20.7 | 21.4 | 22.3 | 22.3 | 22.5 | 21.2 | 20.9 |
| 8/16/2011 | 18 | N/A | 20.7 | 21.2 | 22.0 | 21.9 | 22.1 | 21.2 | 21.0 |
| 8/16/2011 | 19 | N/A | 20.7 | 20.9 | 21.6 | 21.5 | 21.6 | 21.2 | 21.0 |
| 8/16/2011 | 20 | N/A | 20.7 | 20.6 | 21.2 | 21.1 | 21.2 | 21.2 | 21.0 |
| 8/16/2011 | 21 | N/A | 20.7 | 20.4 | 20.7 | 20.6 | 20.7 | 21.2 | 21.0 |
| 8/16/2011 | 22 | N/A | 20.8 | 20.2 | 20.3 | 20.3 | 20.3 | 21.2 | 21.0 |
| 8/16/2011 | 23 | N/A | 20.8 | 20.1 | 20.1 | 20.0 | 20.0 | 21.2 | 21.0 |
| 8/16/2011 | 24 | N/A | 20.6 | 19.7 | 19.5 | 19.4 | 19.4 | 21.2 | 20.8 |
| 8/17/2011 | 1 | N/A | 20.8 | 20.0 | 19.7 | 19.7 | 19.6 | 21.2 | 20.9 |
| 8/17/2011 | 2 | N/A | 20.8 | 20.0 | 19.7 | 19.6 | 19.5 | 21.2 | 20.9 |
| 8/17/2011 | 3 | N/A | 20.7 | 19.9 | 19.6 | 19.5 | 19.4 | 21.2 | 20.9 |
| 8/17/2011 | 4 | N/A | 20.7 | 19.9 | 19.5 | 19.4 | 19.3 | 21.2 | 20.8 |
| 8/17/2011 | 5 | N/A | 20.6 | 19.8 | 19.4 | 19.3 | 19.2 | 21.2 | 20.8 |
| 8/17/2011 | 6 | N/A | 20.6 | 19.8 | 19.3 | 19.2 | 19.2 | 21.1 | 20.7 |
| 8/17/2011 | 7 | N/A | 20.6 | 19.7 | 19.2 | 19.2 | 19.1 | 21.1 | 20.7 |
| 8/17/2011 | 8 | N/A | 20.6 | 19.9 | 19.2 | 19.2 | 19.1 | 21.1 | 20.7 |
| 8/17/2011 | 9 | N/A | 20.6 | 20.2 | 19.4 | 19.3 | 19.2 | 21.1 | 20.7 |
| 8/17/2011 | 10 | N/A | 20.6 | 20.6 | 19.7 | 19.6 | 19.6 | 21.1 | 20.7 |
| 8/17/2011 | 11 | N/A | 20.6 | 21.1 | 20.3 | 20.1 | 20.1 | 21.1 | 20.7 |
| 8/17/2011 | 12 | N/A | 20.6 | 21.4 | 21.1 | 20.9 | 20.9 | 21.1 | 20.7 |
| 8/17/2011 | 13 | N/A | 20.6 | 21.5 | 21.9 | 21.7 | 21.7 | 21.1 | 20.7 |
| 8/17/2011 | 14 | N/A | 20.6 | 21.6 | 22.4 | 22.3 | 22.4 | 21.1 | 20.8 |
| 8/17/2011 | 15 | N/A | 20.6 | 21.6 | 22.6 | 22.6 | 22.8 | 21.2 | 20.8 |
| 8/17/2011 | 16 | N/A | 20.5 | 21.6 | 22.6 | 22.6 | 22.8 | 21.2 | 20.8 |
| 8/17/2011 | 17 | N/A | 20.5 | 21.4 | 22.4 | 22.4 | 22.5 | 21.2 | 20.9 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/17/2011 | 18 | N/A | 20.3 | 21.1 | 22.0 | 21.9 | 22.1 | 21.2 | 20.9 |
| 8/17/2011 | 19 | N/A | 20.3 | 20.7 | 21.5 | 21.4 | 21.4 | 21.2 | 20.8 |
| 8/17/2011 | 20 | N/A | 20.5 | 20.4 | 20.9 | 20.9 | 20.9 | 21.2 | 20.8 |
| 8/17/2011 | 21 | N/A | 20.4 | 20.1 | 20.4 | 20.3 | 20.4 | 21.2 | 20.9 |
| 8/17/2011 | 22 | N/A | 20.5 | 20.1 | 20.0 | 19.9 | 19.9 | 21.2 | 20.9 |
| 8/17/2011 | 23 | N/A | 20.6 | 20.0 | 19.7 | 19.7 | 19.6 | 21.2 | 20.9 |
| 8/17/2011 | 24 | N/A | 20.7 | 20.1 | 19.8 | 19.8 | 19.7 | 21.2 | 20.9 |
| 8/18/2011 | 1 | N/A | 20.6 | 19.9 | 19.5 | 19.4 | 19.4 | 21.2 | 20.8 |
| 8/18/2011 | 2 | N/A | 20.5 | 19.9 | 19.4 | 19.3 | 19.2 | 21.2 | 20.8 |
| 8/18/2011 | 3 | N/A | 20.5 | 20.0 | 19.3 | 19.3 | 19.2 | 21.1 | 20.7 |
| 8/18/2011 | 4 | N/A | 20.5 | 20.0 | 19.4 | 19.3 | 19.2 | 21.0 | 20.6 |
| 8/18/2011 | 5 | N/A | 20.4 | 19.9 | 19.4 | 19.3 | 19.2 | 21.0 | 20.6 |
| 8/18/2011 | 6 | N/A | 20.3 | 19.8 | 19.3 | 19.2 | 19.2 | 20.9 | 20.5 |
| 8/18/2011 | 7 | N/A | 20.3 | 19.8 | 19.2 | 19.2 | 19.1 | 20.9 | 20.5 |
| 8/18/2011 | 8 | N/A | 20.3 | 20.0 | 19.3 | 19.2 | 19.2 | 20.8 | 20.4 |
| 8/18/2011 | 9 | N/A | 20.3 | 20.3 | 19.4 | 19.3 | 19.3 | 20.7 | 20.4 |
| 8/18/2011 | 10 | N/A | 20.3 | 20.6 | 19.7 | 19.6 | 19.6 | 20.7 | 20.4 |
| 8/18/2011 | 11 | N/A | 20.4 | 21.0 | 20.2 | 20.1 | 20.1 | 20.8 | 20.5 |
| 8/18/2011 | 12 | N/A | 20.5 | 21.3 | 20.9 | 20.8 | 20.8 | 20.9 | 20.5 |
| 8/18/2011 | 13 | N/A | 20.7 | 21.5 | 21.6 | 21.5 | 21.5 | 20.9 | 20.6 |
| 8/18/2011 | 14 | N/A | 20.7 | 21.5 | 22.0 | 21.9 | 22.0 | 21.0 | 20.7 |
| 8/18/2011 | 15 | N/A | 20.8 | 21.5 | 22.3 | 22.3 | 22.4 | 21.0 | 20.8 |
| 8/18/2011 | 16 | N/A | 20.9 | 21.5 | 22.3 | 22.2 | 22.5 | 21.1 | 20.9 |
| 8/18/2011 | 17 | N/A | 20.9 | 21.6 | 22.2 | 22.2 | 22.5 | 21.2 | 21.0 |
| 8/18/2011 | 18 | N/A | 21.0 | 21.4 | 22.1 | 22.0 | 22.2 | 21.2 | 21.0 |
| 8/18/2011 | 19 | N/A | 21.0 | 21.0 | 21.9 | 21.8 | 21.8 | 21.2 | 21.0 |
| 8/18/2011 | 20 | N/A | 20.9 | 20.6 | 21.7 | 21.7 | 21.6 | 21.2 | 21.1 |
| 8/18/2011 | 21 | N/A | 20.9 | 20.3 | 21.3 | 21.3 | 21.3 | 21.2 | 21.0 |
| 8/18/2011 | 22 | N/A | 20.8 | 20.1 | 20.9 | 20.8 | 20.9 | 21.1 | 21.0 |
| 8/18/2011 | 23 | N/A | 20.8 | 19.8 | 20.2 | 20.2 | 20.3 | 21.1 | 21.0 |
| 8/18/2011 | 24 | N/A | 20.7 | 19.9 | 19.6 | 19.6 | 19.5 | 21.2 | 20.8 |
| 8/19/2011 | 1 | N/A | 20.7 | 19.5 | 19.5 | 19.4 | 19.5 | 21.1 | 20.9 |
| 8/19/2011 | 2 | N/A | 20.7 | 19.5 | 19.2 | 19.2 | 19.2 | 21.1 | 20.8 |
| 8/19/2011 | 3 | N/A | 20.6 | 19.5 | 19.0 | 18.9 | 18.9 | 21.0 | 20.8 |
| 8/19/2011 | 4 | N/A | 20.5 | 19.5 | 18.8 | 18.8 | 18.7 | 21.0 | 20.7 |
| 8/19/2011 | 5 | N/A | 20.5 | 19.5 | 18.7 | 18.7 | 18.6 | 21.0 | 20.7 |
| 8/19/2011 | 6 | N/A | 20.4 | 19.5 | 18.7 | 18.6 | 18.5 | 20.9 | 20.6 |
| 8/19/2011 | 7 | N/A | 20.4 | 19.5 | 18.6 | 18.6 | 18.5 | 20.9 | 20.6 |
| 8/19/2011 | 8 | N/A | 20.4 | 19.6 | 18.7 | 18.6 | 18.5 | 20.9 | 20.6 |
| 8/19/2011 | 9 | N/A | 20.5 | 19.8 | 18.8 | 18.7 | 18.7 | 20.8 | 20.6 |
| 8/19/2011 | 10 | N/A | 20.5 | 20.2 | 19.2 | 18.9 | 19.0 | 20.8 | 20.6 |
| 8/19/2011 | 11 | N/A | 20.7 | 20.7 | 19.6 | 19.3 | 19.5 | 20.9 | 20.6 |
| 8/19/2011 | 12 | N/A | 20.7 | 21.3 | 20.1 | 19.7 | 20.0 | 21.0 | 20.7 |
| 8/19/2011 | 13 | N/A | 20.8 | 21.8 | 20.8 | 20.4 | 20.6 | 21.0 | 20.7 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/19/2011 | 14 | N/A | 20.9 | 22.1 | 21.5 | 21.2 | 21.3 | 21.1 | 20.8 |
| 8/19/2011 | 15 | N/A | 21.0 | 22.3 | 22.0 | 21.8 | 22.1 | 21.2 | 20.9 |
| 8/19/2011 | 16 | N/A | 21.1 | 22.3 | 22.3 | 22.4 | 22.5 | 21.2 | 21.0 |
| 8/19/2011 | 17 | N/A | 21.1 | 22.2 | 22.6 | 22.7 | 22.8 | 21.3 | 21.1 |
| 8/19/2011 | 18 | N/A | 21.1 | 21.9 | 22.8 | 22.8 | 22.9 | 21.3 | 21.1 |
| 8/19/2011 | 19 | N/A | 21.1 | 21.5 | 22.6 | 22.6 | 22.6 | 21.3 | 21.2 |
| 8/19/2011 | 20 | N/A | 21.0 | 21.1 | 22.3 | 22.3 | 22.3 | 21.3 | 21.1 |
| 8/19/2011 | 21 | N/A | 21.0 | 20.7 | 21.9 | 21.9 | 21.9 | 21.3 | 21.1 |
| 8/19/2011 | 22 | N/A | 20.9 | 20.4 | 21.4 | 21.5 | 21.5 | 21.3 | 21.1 |
| 8/19/2011 | 23 | N/A | 20.9 | 20.2 | 21.0 | 21.0 | 21.1 | 21.3 | 21.1 |
| 8/19/2011 | 24 | N/A | 20.7 | 19.7 | 19.8 | 19.8 | 19.9 | 21.1 | 20.9 |
| 8/20/2011 | 1 | N/A | 20.8 | 19.9 | 20.1 | 20.1 | 20.1 | 21.3 | 21.1 |
| 8/20/2011 | 2 | N/A | 20.8 | 19.8 | 19.8 | 19.7 | 19.8 | 21.3 | 21.0 |
| 8/20/2011 | 3 | N/A | 20.7 | 19.7 | 19.6 | 19.5 | 19.5 | 21.2 | 21.0 |
| 8/20/2011 | 4 | N/A | 20.7 | 19.6 | 19.3 | 19.3 | 19.3 | 21.2 | 20.9 |
| 8/20/2011 | 5 | N/A | 20.6 | 19.5 | 19.1 | 19.1 | 19.1 | 21.2 | 20.9 |
| 8/20/2011 | 6 | N/A | 20.6 | 19.5 | 19.0 | 19.0 | 18.9 | 21.1 | 20.8 |
| 8/20/2011 | 7 | N/A | 20.6 | 19.4 | 18.8 | 18.8 | 18.7 | 21.1 | 20.8 |
| 8/20/2011 | 8 | N/A | 20.7 | 19.6 | 19.0 | 18.8 | 18.7 | 21.1 | 20.7 |
| 8/20/2011 | 9 | N/A | 20.7 | 20.0 | 19.2 | 18.9 | 18.9 | 21.0 | 20.7 |
| 8/20/2011 | 10 | N/A | 20.8 | 20.5 | 19.4 | 19.0 | 19.2 | 21.0 | 20.8 |
| 8/20/2011 | 11 | N/A | 20.8 | 21.0 | 19.7 | 19.3 | 19.5 | 21.1 | 20.8 |
| 8/20/2011 | 12 | N/A | 20.9 | 21.7 | 20.2 | 19.8 | 20.1 | 21.2 | 20.9 |
| 8/20/2011 | 13 | N/A | 21.0 | 22.3 | 21.1 | 20.7 | 20.8 | 21.2 | 20.9 |
| 8/20/2011 | 14 | N/A | 21.2 | 22.6 | 21.9 | 21.6 | 21.7 | 21.3 | 21.0 |
| 8/20/2011 | 15 | N/A | 21.2 | 22.7 | 22.5 | 22.4 | 22.6 | 21.3 | 21.1 |
| 8/20/2011 | 16 | N/A | 21.1 | 22.8 | 22.9 | 23.0 | 23.2 | 21.4 | 21.2 |
| 8/20/2011 | 17 | N/A | 21.0 | 22.6 | 23.2 | 23.3 | 23.5 | 21.4 | 21.2 |
| 8/20/2011 | 18 | N/A | 21.0 | 22.3 | 23.4 | 23.4 | 23.5 | 21.5 | 21.2 |
| 8/20/2011 | 19 | N/A | 20.9 | 21.8 | 23.2 | 23.2 | 23.2 | 21.4 | 21.2 |
| 8/20/2011 | 20 | N/A | 20.9 | 21.3 | 22.8 | 22.8 | 22.9 | 21.4 | 21.1 |
| 8/20/2011 | 21 | N/A | 20.8 | 20.9 | 22.4 | 22.4 | 22.5 | 21.3 | 21.1 |
| 8/20/2011 | 22 | N/A | 20.7 | 20.6 | 22.0 | 22.0 | 22.1 | 21.3 | 21.1 |
| 8/20/2011 | 23 | N/A | 20.7 | 20.3 | 21.4 | 21.4 | 21.6 | 21.3 | 21.0 |
| 8/20/2011 | 24 | N/A | 20.9 | 20.1 | 20.5 | 20.5 | 20.6 | 21.3 | 21.1 |
| 8/21/2011 | 1 | N/A | 20.5 | 20.0 | 20.4 | 20.3 | 20.5 | 21.2 | 20.8 |
| 8/21/2011 | 2 | N/A | 20.5 | 19.9 | 20.0 | 20.0 | 20.1 | 21.1 | 20.8 |
| 8/21/2011 | 3 | N/A | 20.3 | 19.8 | 19.7 | 19.7 | 19.7 | 21.1 | 20.7 |
| 8/21/2011 | 4 | N/A | 20.4 | 19.7 | 19.5 | 19.5 | 19.5 | 21.0 | 20.7 |
| 8/21/2011 | 5 | N/A | 20.3 | 19.7 | 19.3 | 19.3 | 19.3 | 21.0 | 20.6 |
| 8/21/2011 | 6 | N/A | 20.3 | 19.6 | 19.2 | 19.2 | 19.1 | 20.9 | 20.6 |
| 8/21/2011 | 7 | N/A | 20.3 | 19.5 | 19.1 | 19.0 | 19.0 | 20.9 | 20.5 |
| 8/21/2011 | 8 | N/A | 20.3 | 19.7 | 19.2 | 19.0 | 19.0 | 20.8 | 20.5 |
| 8/21/2011 | 9 | N/A | 20.4 | 20.0 | 19.4 | 19.1 | 19.2 | 20.8 | 20.5 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/21/2011 | 10 | N/A | 20.4 | 20.5 | 19.6 | 19.2 | 19.4 | 20.8 | 20.5 |
| 8/21/2011 | 11 | N/A | 20.5 | 21.1 | 19.8 | 19.5 | 19.7 | 20.8 | 20.5 |
| 8/21/2011 | 12 | N/A | 20.5 | 21.6 | 20.2 | 19.9 | 20.2 | 20.9 | 20.6 |
| 8/21/2011 | 13 | N/A | 20.4 | 21.9 | 21.1 | 20.7 | 20.8 | 20.9 | 20.6 |
| 8/21/2011 | 14 | N/A | 20.4 | 22.3 | 21.9 | 21.6 | 21.8 | 20.9 | 20.6 |
| 8/21/2011 | 15 | N/A | 20.3 | 22.3 | 22.3 | 22.2 | 22.3 | 20.9 | 20.7 |
| 8/21/2011 | 16 | N/A | 20.2 | 22.1 | 22.8 | 22.7 | 22.7 | 21.0 | 20.7 |
| 8/21/2011 | 17 | N/A | 20.3 | 21.9 | 22.9 | 22.9 | 23.0 | 21.0 | 20.8 |
| 8/21/2011 | 18 | N/A | 20.3 | 21.6 | 22.8 | 22.8 | 23.0 | 21.0 | 20.8 |
| 8/21/2011 | 19 | N/A | 20.3 | 21.2 | 22.4 | 22.4 | 22.6 | 21.0 | 20.8 |
| 8/21/2011 | 20 | N/A | 20.1 | 20.9 | 22.1 | 22.1 | 22.1 | 21.0 | 20.8 |
| 8/21/2011 | 21 | N/A | 20.2 | 20.6 | 21.7 | 21.7 | 21.8 | 21.1 | 20.9 |
| 8/21/2011 | 22 | N/A | 19.7 | 20.3 | 21.2 | 21.2 | 21.4 | 21.1 | 20.7 |
| 8/21/2011 | 23 | N/A | 19.8 | 20.2 | 20.9 | 20.8 | 20.9 | 21.1 | 20.8 |
| 8/21/2011 | 24 | N/A | 20.6 | 20.2 | 20.8 | 20.8 | 21.0 | 21.2 | 20.9 |
| 8/22/2011 | 1 | N/A | 20.3 | 19.9 | 20.1 | 20.1 | 20.1 | 21.1 | 20.9 |
| 8/22/2011 | 2 | N/A | 20.1 | 19.7 | 19.8 | 19.8 | 19.8 | 21.1 | 20.9 |
| 8/22/2011 | 3 | N/A | 20.4 | 19.7 | 19.6 | 19.6 | 19.6 | 21.0 | 20.9 |
| 8/22/2011 | 4 | N/A | 20.5 | 19.6 | 19.4 | 19.4 | 19.4 | 21.0 | 20.9 |
| 8/22/2011 | 5 | N/A | 20.4 | 19.6 | 19.2 | 19.2 | 19.2 | 20.9 | 20.9 |
| 8/22/2011 | 6 | N/A | 20.4 | 19.5 | 19.1 | 19.0 | 19.0 | 20.9 | 20.8 |
| 8/22/2011 | 7 | N/A | 20.0 | 19.6 | 19.0 | 18.9 | 18.8 | 20.8 | 20.7 |
| 8/22/2011 | 8 | N/A | 19.8 | 19.7 | 19.1 | 18.9 | 18.9 | 20.8 | 20.5 |
| 8/22/2011 | 9 | N/A | 20.2 | 20.2 | 19.4 | 19.2 | 19.2 | 20.7 | 20.5 |
| 8/22/2011 | 10 | N/A | 20.0 | 20.5 | 19.3 | 19.2 | 19.4 | 20.8 | 20.6 |
| 8/22/2011 | 11 | N/A | 20.0 | 20.8 | 19.7 | 19.5 | 19.6 | 20.9 | 20.5 |
| 8/22/2011 | 12 | N/A | 20.4 | 21.2 | 20.2 | 19.9 | 19.9 | 21.0 | 20.7 |
| 8/22/2011 | 13 | N/A | 20.4 | 21.8 | 20.8 | 20.5 | 20.7 | 21.1 | 20.8 |
| 8/22/2011 | 14 | N/A | 20.4 | 21.8 | 21.3 | 21.1 | 21.2 | 21.2 | 21.0 |
| 8/22/2011 | 15 | N/A | 20.4 | 21.7 | 21.7 | 21.6 | 21.4 | 21.3 | 21.0 |
| 8/22/2011 | 16 | N/A | 20.5 | 21.4 | 21.8 | 21.7 | 21.6 | 21.4 | 21.2 |
| 8/22/2011 | 17 | N/A | 21.0 | 21.0 | 21.8 | 21.7 | 21.6 | 21.4 | 21.2 |
| 8/22/2011 | 18 | N/A | 21.1 | 20.7 | 21.6 | 21.6 | 21.6 | 21.4 | 21.2 |
| 8/22/2011 | 19 | N/A | 21.1 | 20.5 | 21.3 | 21.3 | 21.3 | 21.4 | 21.2 |
| 8/22/2011 | 20 | N/A | 21.1 | 20.4 | 20.9 | 20.8 | 20.9 | 21.4 | 21.2 |
| 8/22/2011 | 21 | N/A | 21.1 | 20.2 | 20.5 | 20.4 | 20.4 | 21.4 | 21.2 |
| 8/22/2011 | 22 | N/A | 21.1 | 20.2 | 20.1 | 20.1 | 20.1 | 21.4 | 21.2 |
| 8/22/2011 | 23 | N/A | 21.0 | 20.1 | 19.9 | 19.8 | 19.8 | 21.4 | 21.2 |
| 8/22/2011 | 24 | N/A | 19.7 | 20.0 | 20.4 | 20.4 | 20.5 | 21.1 | 20.8 |
| 8/23/2011 | 1 | N/A | 20.9 | 20.0 | 19.6 | 19.5 | 19.5 | 21.3 | 21.1 |
| 8/23/2011 | 2 | N/A | 20.8 | 20.0 | 19.5 | 19.4 | 19.3 | 21.3 | 21.0 |
| 8/23/2011 | 3 | N/A | 20.7 | 20.0 | 19.4 | 19.4 | 19.3 | 21.2 | 20.9 |
| 8/23/2011 | 4 | N/A | 20.7 | 19.9 | 19.4 | 19.3 | 19.2 | 21.2 | 20.8 |
| 8/23/2011 | 5 | N/A | 20.6 | 19.9 | 19.3 | 19.3 | 19.2 | 21.1 | 20.8 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/23/2011 | 6 | N/A | 20.6 | 19.8 | 19.3 | 19.3 | 19.1 | 21.1 | 20.8 |
| 8/23/2011 | 7 | N/A | 20.6 | 19.9 | 19.3 | 19.2 | 19.1 | 21.0 | 20.7 |
| 8/23/2011 | 8 | N/A | 20.6 | 19.9 | 19.3 | 19.2 | 19.2 | 20.9 | 20.7 |
| 8/23/2011 | 9 | N/A | 20.7 | 20.2 | 19.5 | 19.3 | 19.4 | 20.9 | 20.7 |
| 8/23/2011 | 10 | N/A | 20.7 | 20.7 | 19.9 | 19.6 | 19.7 | 21.0 | 20.7 |
| 8/23/2011 | 11 | N/A | 20.8 | 21.2 | 20.1 | 19.7 | 20.0 | 21.0 | 20.8 |
| 8/23/2011 | 12 | N/A | 20.9 | 21.6 | 20.4 | 20.1 | 20.3 | 21.1 | 20.8 |
| 8/23/2011 | 13 | N/A | 21.0 | 22.1 | 21.1 | 20.8 | 20.9 | 21.1 | 20.9 |
| 8/23/2011 | 14 | N/A | 21.0 | 22.3 | 21.9 | 21.6 | 21.7 | 21.2 | 21.0 |
| 8/23/2011 | 15 | N/A | 21.1 | 22.5 | 22.3 | 22.2 | 22.4 | 21.3 | 21.1 |
| 8/23/2011 | 16 | N/A | 21.1 | 22.5 | 22.6 | 22.7 | 22.8 | 21.3 | 21.2 |
| 8/23/2011 | 17 | N/A | 21.2 | 22.3 | 22.8 | 22.9 | 23.0 | 21.4 | 21.2 |
| 8/23/2011 | 18 | N/A | 21.2 | 22.0 | 22.9 | 22.9 | 23.0 | 21.4 | 21.3 |
| 8/23/2011 | 19 | N/A | 21.2 | 21.6 | 22.8 | 22.8 | 22.8 | 21.4 | 21.4 |
| 8/23/2011 | 20 | N/A | 21.2 | 21.2 | 22.5 | 22.4 | 22.5 | 21.4 | 21.4 |
| 8/23/2011 | 21 | N/A | 21.2 | 20.9 | 22.1 | 22.1 | 22.1 | 21.4 | 21.3 |
| 8/23/2011 | 22 | N/A | 21.2 | 20.6 | 21.6 | 21.6 | 21.7 | 21.4 | 21.3 |
| 8/23/2011 | 23 | N/A | 21.1 | 20.4 | 21.1 | 21.1 | 21.2 | 21.4 | 21.2 |
| 8/23/2011 | 24 | N/A | 21.0 | 20.0 | 19.7 | 19.7 | 19.6 | 21.3 | 21.1 |
| 8/24/2011 | 1 | N/A | 21.0 | 20.2 | 20.3 | 20.3 | 20.3 | 21.4 | 21.2 |
| 8/24/2011 | 2 | N/A | 20.9 | 20.2 | 20.0 | 20.0 | 20.0 | 21.3 | 21.1 |
| 8/24/2011 | 3 | N/A | 20.9 | 20.1 | 19.8 | 19.8 | 19.7 | 21.3 | 21.1 |
| 8/24/2011 | 4 | N/A | 20.8 | 20.0 | 19.7 | 19.6 | 19.6 | 21.2 | 21.0 |
| 8/24/2011 | 5 | N/A | 20.8 | 20.0 | 19.5 | 19.5 | 19.4 | 21.2 | 21.0 |
| 8/24/2011 | 6 | N/A | 20.7 | 19.9 | 19.4 | 19.3 | 19.2 | 21.2 | 21.0 |
| 8/24/2011 | 7 | N/A | 20.7 | 19.8 | 19.3 | 19.2 | 19.2 | 21.1 | 20.9 |
| 8/24/2011 | 8 | N/A | 20.8 | 19.9 | 19.4 | 19.2 | 19.2 | 21.1 | 20.9 |
| 8/24/2011 | 9 | N/A | 20.8 | 20.3 | 19.6 | 19.3 | 19.3 | 21.1 | 20.9 |
| 8/24/2011 | 10 | N/A | 20.9 | 20.7 | 19.8 | 19.4 | 19.6 | 21.2 | 20.9 |
| 8/24/2011 | 11 | N/A | 21.0 | 21.3 | 20.0 | 19.7 | 19.9 | 21.2 | 21.0 |
| 8/24/2011 | 12 | N/A | 21.1 | 21.8 | 20.5 | 20.2 | 20.4 | 21.3 | 21.0 |
| 8/24/2011 | 13 | N/A | 21.1 | 22.3 | 21.3 | 21.0 | 21.1 | 21.3 | 21.1 |
| 8/24/2011 | 14 | N/A | 21.3 | 22.6 | 22.1 | 21.8 | 22.0 | 21.4 | 21.2 |
| 8/24/2011 | 15 | N/A | 21.4 | 22.8 | 22.6 | 22.5 | 22.8 | 21.4 | 21.3 |
| 8/24/2011 | 16 | N/A | 21.4 | 22.8 | 22.9 | 23.0 | 23.2 | 21.5 | 21.3 |
| 8/24/2011 | 17 | N/A | 21.5 | 22.6 | 23.3 | 23.3 | 23.4 | 21.6 | 21.4 |
| 8/24/2011 | 18 | N/A | 21.5 | 22.3 | 23.5 | 23.4 | 23.4 | 21.6 | 21.5 |
| 8/24/2011 | 19 | N/A | 21.4 | 21.9 | 23.2 | 23.2 | 23.2 | 21.6 | 21.5 |
| 8/24/2011 | 20 | N/A | 21.4 | 21.5 | 22.9 | 22.9 | 22.8 | 21.6 | 21.5 |
| 8/24/2011 | 21 | N/A | 21.4 | 21.2 | 22.5 | 22.5 | 22.5 | 21.6 | 21.5 |
| 8/24/2011 | 22 | N/A | 21.4 | 20.9 | 22.1 | 22.0 | 22.1 | 21.6 | 21.5 |
| 8/24/2011 | 23 | N/A | 21.4 | 20.7 | 21.6 | 21.5 | 21.7 | 21.6 | 21.5 |
| 8/24/2011 | 24 | N/A | 21.1 | 20.3 | 20.7 | 20.7 | 20.7 | 21.4 | 21.2 |
| 8/25/2011 | 1 | N/A | 21.3 | 20.5 | 20.8 | 20.8 | 20.9 | 21.6 | 21.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/25/2011 | 2 | N/A | 21.3 | 20.4 | 20.5 | 20.4 | 20.5 | 21.6 | 21.4 |
| 8/25/2011 | 3 | N/A | 21.2 | 20.3 | 20.3 | 20.2 | 20.2 | 21.6 | 21.3 |
| 8/25/2011 | 4 | N/A | 21.2 | 20.3 | 20.1 | 20.1 | 20.1 | 21.5 | 21.3 |
| 8/25/2011 | 5 | N/A | 21.1 | 20.2 | 20.0 | 19.9 | 19.9 | 21.5 | 21.3 |
| 8/25/2011 | 6 | N/A | 21.1 | 20.2 | 19.8 | 19.8 | 19.7 | 21.5 | 21.2 |
| 8/25/2011 | 7 | N/A | 21.0 | 20.2 | 19.7 | 19.7 | 19.6 | 21.4 | 21.2 |
| 8/25/2011 | 8 | N/A | 21.1 | 20.2 | 19.8 | 19.7 | 19.7 | 21.4 | 21.2 |
| 8/25/2011 | 9 | N/A | 21.1 | 20.6 | 20.1 | 19.8 | 19.8 | 21.4 | 21.2 |
| 8/25/2011 | 10 | N/A | 21.2 | 21.0 | 20.3 | 19.9 | 20.1 | 21.5 | 21.2 |
| 8/25/2011 | 11 | N/A | 21.3 | 21.5 | 20.5 | 20.2 | 20.4 | 21.5 | 21.3 |
| 8/25/2011 | 12 | N/A | 21.4 | 22.0 | 21.0 | 20.7 | 20.9 | 21.6 | 21.3 |
| 8/25/2011 | 13 | N/A | 21.5 | 22.4 | 21.7 | 21.4 | 21.6 | 21.7 | 21.4 |
| 8/25/2011 | 14 | N/A | 21.6 | 22.7 | 22.4 | 22.2 | 22.4 | 21.7 | 21.5 |
| 8/25/2011 | 15 | N/A | 21.8 | 22.9 | 23.0 | 22.9 | 23.2 | 21.8 | 21.7 |
| 8/25/2011 | 16 | N/A | 21.7 | 22.8 | 23.3 | 23.4 | 23.6 | 21.9 | 21.8 |
| 8/25/2011 | 17 | N/A | 21.7 | 22.5 | 23.6 | 23.7 | 23.8 | 21.9 | 21.8 |
| 8/25/2011 | 18 | N/A | 21.7 | 22.3 | 23.7 | 23.7 | 23.8 | 21.9 | 21.8 |
| 8/25/2011 | 19 | N/A | 21.7 | 22.0 | 23.5 | 23.5 | 23.5 | 21.9 | 21.8 |
| 8/25/2011 | 20 | N/A | 21.7 | 21.6 | 23.2 | 23.2 | 23.2 | 22.0 | 21.9 |
| 8/25/2011 | 21 | N/A | 21.8 | 21.3 | 22.8 | 22.8 | 22.9 | 22.0 | 21.9 |
| 8/25/2011 | 22 | N/A | 21.8 | 21.1 | 22.3 | 22.3 | 22.4 | 22.0 | 21.9 |
| 8/25/2011 | 23 | N/A | 21.8 | 20.9 | 21.8 | 21.8 | 21.9 | 22.0 | 21.9 |
| 8/25/2011 | 24 | N/A | 21.4 | 20.6 | 21.2 | 21.1 | 21.2 | 21.6 | 21.5 |
| 8/26/2011 | 1 | N/A | 21.7 | 20.7 | 21.0 | 20.9 | 21.0 | 22.0 | 21.8 |
| 8/26/2011 | 2 | N/A | 21.6 | 20.6 | 20.7 | 20.6 | 20.7 | 22.0 | 21.7 |
| 8/26/2011 | 3 | N/A | 21.6 | 20.6 | 20.5 | 20.4 | 20.4 | 21.9 | 21.7 |
| 8/26/2011 | 4 | N/A | 21.5 | 20.6 | 20.3 | 20.2 | 20.2 | 21.9 | 21.7 |
| 8/26/2011 | 5 | N/A | 21.5 | 20.4 | 20.2 | 20.1 | 20.1 | 21.9 | 21.7 |
| 8/26/2011 | 6 | N/A | 21.4 | 20.4 | 20.0 | 20.0 | 19.9 | 21.9 | 21.7 |
| 8/26/2011 | 7 | N/A | 21.4 | 20.4 | 19.9 | 19.9 | 19.8 | 21.8 | 21.6 |
| 8/26/2011 | 8 | N/A | 21.5 | 20.5 | 20.0 | 19.9 | 19.8 | 21.8 | 21.6 |
| 8/26/2011 | 9 | N/A | 21.5 | 20.8 | 20.2 | 19.9 | 20.0 | 21.8 | 21.6 |
| 8/26/2011 | 10 | N/A | 21.6 | 21.2 | 20.4 | 20.1 | 20.3 | 21.9 | 21.6 |
| 8/26/2011 | 11 | N/A | 21.7 | 21.6 | 20.7 | 20.3 | 20.6 | 21.9 | 21.6 |
| 8/26/2011 | 12 | N/A | 21.8 | 22.0 | 21.2 | 20.8 | 21.0 | 21.9 | 21.7 |
| 8/26/2011 | 13 | N/A | 21.9 | 22.3 | 21.9 | 21.5 | 21.7 | 22.0 | 21.8 |
| 8/26/2011 | 14 | N/A | 22.0 | 22.8 | 22.5 | 22.3 | 22.5 | 22.0 | 21.8 |
| 8/26/2011 | 15 | N/A | 22.1 | 23.2 | 23.0 | 22.9 | 23.2 | 22.1 | 21.9 |
| 8/26/2011 | 16 | N/A | 21.9 | 22.8 | 23.5 | 23.6 | 23.6 | 22.1 | 22.0 |
| 8/26/2011 | 17 | N/A | 21.9 | 22.7 | 23.8 | 23.8 | 23.9 | 22.1 | 22.0 |
| 8/26/2011 | 18 | N/A | 21.8 | 22.4 | 23.8 | 23.8 | 23.9 | 22.1 | 22.1 |
| 8/26/2011 | 19 | N/A | 21.8 | 22.1 | 23.7 | 23.6 | 23.6 | 22.1 | 22.1 |
| 8/26/2011 | 20 | N/A | 21.7 | 21.7 | 23.3 | 23.3 | 23.4 | 22.1 | 22.1 |
| 8/26/2011 | 21 | N/A | 21.5 | 21.4 | 22.9 | 22.9 | 23.0 | 22.1 | 22.0 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/26/2011 | 22 | N/A | 21.5 | 21.1 | 22.3 | 22.3 | 22.5 | 22.1 | 21.9 |
| 8/26/2011 | 23 | N/A | 21.2 | 20.9 | 21.8 | 21.8 | 22.0 | 22.1 | 21.9 |
| 8/26/2011 | 24 | N/A | 21.7 | 20.8 | 21.4 | 21.3 | 21.5 | 22.0 | 21.8 |
| 8/27/2011 | 1 | N/A | 21.5 | 20.7 | 21.0 | 21.0 | 21.1 | 22.0 | 21.9 |
| 8/27/2011 | 2 | N/A | 21.5 | 20.6 | 20.7 | 20.7 | 20.7 | 22.0 | 21.8 |
| 8/27/2011 | 3 | N/A | 21.6 | 20.5 | 20.6 | 20.5 | 20.5 | 22.0 | 21.8 |
| 8/27/2011 | 4 | N/A | 21.6 | 20.4 | 20.4 | 20.3 | 20.3 | 22.0 | 21.8 |
| 8/27/2011 | 5 | N/A | 21.5 | 20.3 | 20.2 | 20.1 | 20.1 | 21.9 | 21.8 |
| 8/27/2011 | 6 | N/A | 21.4 | 20.2 | 20.0 | 19.9 | 19.9 | 21.9 | 21.7 |
| 8/27/2011 | 7 | N/A | 21.4 | 20.2 | 19.8 | 19.8 | 19.7 | 21.9 | 21.7 |
| 8/27/2011 | 8 | N/A | 21.5 | 20.3 | 19.9 | 19.7 | 19.7 | 21.9 | 21.7 |
| 8/27/2011 | 9 | N/A | 21.6 | 20.7 | 20.1 | 19.8 | 19.9 | 21.9 | 21.7 |
| 8/27/2011 | 10 | N/A | 21.7 | 21.2 | 20.3 | 20.0 | 20.2 | 21.9 | 21.7 |
| 8/27/2011 | 11 | N/A | 21.8 | 21.7 | 20.6 | 20.2 | 20.4 | 22.0 | 21.8 |
| 8/27/2011 | 12 | N/A | 21.9 | 22.2 | 21.0 | 20.7 | 20.9 | 22.0 | 21.9 |
| 8/27/2011 | 13 | N/A | 22.0 | 22.6 | 21.7 | 21.4 | 21.5 | 22.0 | 22.0 |
| 8/27/2011 | 14 | N/A | 22.0 | 23.0 | 22.5 | 22.2 | 22.4 | 22.1 | 22.0 |
| 8/27/2011 | 15 | N/A | 21.9 | 23.2 | 23.0 | 22.8 | 23.1 | 22.1 | 22.1 |
| 8/27/2011 | 16 | N/A | 21.5 | 23.2 | 23.3 | 23.4 | 23.6 | 22.2 | 22.0 |
| 8/27/2011 | 17 | N/A | 21.2 | 23.0 | 23.6 | 23.7 | 23.8 | 22.2 | 22.0 |
| 8/27/2011 | 18 | N/A | 21.3 | 22.6 | 23.8 | 23.8 | 23.9 | 22.2 | 22.0 |
| 8/27/2011 | 19 | N/A | 21.1 | 22.1 | 23.6 | 23.6 | 23.6 | 22.2 | 21.8 |
| 8/27/2011 | 20 | N/A | 20.9 | 21.6 | 23.3 | 23.3 | 23.3 | 22.1 | 21.9 |
| 8/27/2011 | 21 | N/A | 20.9 | 21.2 | 22.8 | 22.8 | 22.9 | 22.1 | 21.8 |
| 8/27/2011 | 22 | N/A | 21.0 | 20.8 | 22.3 | 22.3 | 22.4 | 22.1 | 21.9 |
| 8/27/2011 | 23 | N/A | 21.2 | 20.6 | 21.7 | 21.7 | 21.8 | 22.1 | 21.9 |
| 8/27/2011 | 24 | N/A | 21.4 | 20.8 | 21.4 | 21.4 | 21.5 | 22.1 | 21.8 |
| 8/28/2011 | 1 | N/A | 21.2 | 20.2 | 20.7 | 20.7 | 20.8 | 22.1 | 21.8 |
| 8/28/2011 | 2 | N/A | 20.9 | 20.2 | 20.3 | 20.3 | 20.3 | 22.0 | 21.7 |
| 8/28/2011 | 3 | N/A | 20.7 | 20.2 | 20.0 | 19.9 | 20.0 | 21.9 | 21.5 |
| 8/28/2011 | 4 | N/A | 20.6 | 20.2 | 19.7 | 19.7 | 19.7 | 21.9 | 21.6 |
| 8/28/2011 | 5 | N/A | 20.6 | 20.1 | 19.6 | 19.5 | 19.5 | 21.8 | 21.4 |
| 8/28/2011 | 6 | N/A | 20.5 | 20.0 | 19.4 | 19.4 | 19.3 | 21.8 | 21.4 |
| 8/28/2011 | 7 | N/A | 20.8 | 19.9 | 19.3 | 19.3 | 19.2 | 21.7 | 21.4 |
| 8/28/2011 | 8 | N/A | 20.8 | 19.9 | 19.4 | 19.2 | 19.2 | 21.6 | 21.4 |
| 8/28/2011 | 9 | N/A | 20.8 | 20.3 | 19.5 | 19.3 | 19.3 | 21.6 | 21.4 |
| 8/28/2011 | 10 | N/A | 20.8 | 20.6 | 19.5 | 19.3 | 19.5 | 21.7 | 21.4 |
| 8/28/2011 | 11 | N/A | 20.8 | 21.0 | 19.7 | 19.4 | 19.5 | 21.7 | 21.4 |
| 8/28/2011 | 12 | N/A | 20.7 | 21.7 | 20.3 | 20.0 | 20.2 | 21.7 | 21.3 |
| 8/28/2011 | 13 | N/A | 20.9 | 22.1 | 21.0 | 20.6 | 20.8 | 21.8 | 21.3 |
| 8/28/2011 | 14 | N/A | 20.9 | 22.5 | 21.6 | 21.3 | 21.5 | 21.8 | 21.6 |
| 8/28/2011 | 15 | N/A | 21.2 | 22.7 | 22.3 | 22.1 | 22.3 | 21.8 | 21.7 |
| 8/28/2011 | 16 | N/A | 21.2 | 22.7 | 22.8 | 22.8 | 23.0 | 21.9 | 21.8 |
| 8/28/2011 | 17 | N/A | 21.3 | 22.5 | 23.2 | 23.2 | 23.4 | 21.9 | 22.0 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/28/2011 | 18 | N/A | 21.3 | 22.2 | 23.4 | 23.4 | 23.3 | 22.0 | 22.0 |
| 8/28/2011 | 19 | N/A | 21.4 | 21.8 | 23.2 | 23.2 | 23.2 | 22.0 | 22.1 |
| 8/28/2011 | 20 | N/A | 21.4 | 21.5 | 22.9 | 22.9 | 22.9 | 22.1 | 22.0 |
| 8/28/2011 | 21 | N/A | 21.0 | 21.2 | 22.5 | 22.5 | 22.6 | 22.1 | 22.0 |
| 8/28/2011 | 22 | N/A | 21.0 | 20.9 | 22.0 | 22.0 | 22.1 | 22.2 | 21.9 |
| 8/28/2011 | 23 | N/A | 21.2 | 20.8 | 21.5 | 21.5 | 21.6 | 22.2 | 22.0 |
| 8/28/2011 | 24 | N/A | 20.9 | 20.3 | 21.2 | 21.2 | 21.3 | 22.1 | 21.9 |
| 8/29/2011 | 1 | N/A | 21.1 | 20.6 | 20.7 | 20.7 | 20.8 | 22.2 | 21.9 |
| 8/29/2011 | 2 | N/A | 21.3 | 20.6 | 20.5 | 20.4 | 20.4 | 22.2 | 21.9 |
| 8/29/2011 | 3 | N/A | 20.9 | 20.4 | 20.3 | 20.2 | 20.2 | 22.2 | 21.8 |
| 8/29/2011 | 4 | N/A | 21.1 | 20.4 | 20.1 | 20.1 | 20.0 | 22.2 | 21.9 |
| 8/29/2011 | 5 | N/A | 21.3 | 20.3 | 19.9 | 19.9 | 19.8 | 22.2 | 21.9 |
| 8/29/2011 | 6 | N/A | 21.5 | 20.2 | 19.8 | 19.7 | 19.7 | 22.2 | 21.9 |
| 8/29/2011 | 7 | N/A | 21.6 | 20.2 | 19.7 | 19.6 | 19.6 | 22.2 | 22.0 |
| 8/29/2011 | 8 | N/A | 21.8 | 20.3 | 19.7 | 19.6 | 19.5 | 22.2 | 22.0 |
| 8/29/2011 | 9 | N/A | 22.0 | 20.7 | 19.9 | 19.7 | 19.7 | 22.2 | 22.1 |
| 8/29/2011 | 10 | N/A | 22.0 | 21.1 | 20.1 | 19.8 | 20.0 | 22.2 | 22.1 |
| 8/29/2011 | 11 | N/A | 21.9 | 21.6 | 20.4 | 20.0 | 20.3 | 22.3 | 22.2 |
| 8/29/2011 | 12 | N/A | 22.0 | 22.1 | 20.9 | 20.5 | 20.8 | 22.3 | 22.2 |
| 8/29/2011 | 13 | N/A | 21.9 | 22.6 | 21.5 | 21.2 | 21.3 | 22.3 | 22.2 |
| 8/29/2011 | 14 | N/A | 21.7 | 23.0 | 22.3 | 22.0 | 22.2 | 22.3 | 22.1 |
| 8/29/2011 | 15 | N/A | 21.4 | 23.0 | 22.8 | 22.7 | 22.8 | 22.4 | 22.0 |
| 8/29/2011 | 16 | N/A | 21.3 | 22.9 | 23.1 | 23.2 | 23.2 | 22.4 | 22.1 |
| 8/29/2011 | 17 | N/A | 21.1 | 22.6 | 23.4 | 23.5 | 23.4 | 22.4 | 22.1 |
| 8/29/2011 | 18 | N/A | 21.2 | 22.2 | 23.4 | 23.4 | 23.3 | 22.5 | 22.3 |
| 8/29/2011 | 19 | N/A | 21.3 | 21.6 | 23.1 | 23.1 | 22.9 | 22.5 | 22.2 |
| 8/29/2011 | 20 | N/A | 21.8 | 21.1 | 22.6 | 22.6 | 22.4 | 22.5 | 22.3 |
| 8/29/2011 | 21 | N/A | 22.0 | 20.8 | 22.0 | 22.0 | 21.9 | 22.6 | 22.3 |
| 8/29/2011 | 22 | N/A | 22.1 | 20.4 | 21.4 | 21.4 | 21.4 | 22.6 | 22.3 |
| 8/29/2011 | 23 | N/A | 22.1 | 20.4 | 20.9 | 20.9 | 20.9 | 22.5 | 22.2 |
| 8/29/2011 | 24 | N/A | 21.0 | 20.7 | 21.1 | 21.0 | 21.2 | 22.2 | 21.9 |
| 8/30/2011 | 1 | N/A | 21.8 | 20.3 | 20.0 | 20.0 | 20.0 | 22.3 | 22.0 |
| 8/30/2011 | 2 | N/A | 21.7 | 20.3 | 19.7 | 19.7 | 19.6 | 22.3 | 21.9 |
| 8/30/2011 | 3 | N/A | 21.7 | 20.3 | 19.6 | 19.6 | 19.4 | 22.2 | 21.8 |
| 8/30/2011 | 4 | N/A | 21.6 | 20.2 | 19.5 | 19.5 | 19.3 | 22.1 | 21.8 |
| 8/30/2011 | 5 | N/A | 21.6 | 20.3 | 19.4 | 19.4 | 19.2 | 22.0 | 21.7 |
| 8/30/2011 | 6 | N/A | 21.5 | 20.2 | 19.4 | 19.4 | 19.2 | 21.9 | 21.6 |
| 8/30/2011 | 7 | N/A | 21.4 | 20.2 | 19.3 | 19.3 | 19.1 | 21.9 | 21.6 |
| 8/30/2011 | 8 | N/A | 21.4 | 20.3 | 19.5 | 19.3 | 19.2 | 21.9 | 21.6 |
| 8/30/2011 | 9 | N/A | 21.5 | 20.5 | 19.8 | 19.5 | 19.4 | 21.9 | 21.6 |
| 8/30/2011 | 10 | N/A | 21.5 | 20.8 | 19.9 | 19.6 | 19.7 | 21.9 | 21.6 |
| 8/30/2011 | 11 | N/A | 21.6 | 21.2 | 20.1 | 19.7 | 20.0 | 21.9 | 21.6 |
| 8/30/2011 | 12 | N/A | 21.7 | 21.7 | 20.3 | 20.1 | 20.3 | 21.9 | 21.7 |
| 8/30/2011 | 13 | N/A | 21.7 | 22.2 | 20.9 | 20.7 | 20.8 | 21.9 | 21.7 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 8/30/2011 | 14 | N/A | 21.8 | 22.6 | 21.7 | 21.3 | 21.5 | 22.0 | 21.8 |
| 8/30/2011 | 15 | N/A | 21.9 | 22.7 | 22.1 | 22.0 | 22.1 | 22.0 | 21.9 |
| 8/30/2011 | 16 | N/A | 21.9 | 22.6 | 22.4 | 22.5 | 22.5 | 22.0 | 21.9 |
| 8/30/2011 | 17 | N/A | 21.9 | 22.4 | 22.7 | 22.7 | 22.7 | 22.0 | 22.0 |
| 8/30/2011 | 18 | N/A | 21.9 | 22.0 | 22.7 | 22.7 | 22.6 | 22.1 | 22.0 |
| 8/30/2011 | 19 | N/A | 21.8 | 21.6 | 22.5 | 22.5 | 22.3 | 22.1 | 22.0 |
| 8/30/2011 | 20 | N/A | 21.8 | 21.2 | 22.2 | 22.2 | 22.0 | 22.1 | 22.0 |
| 8/30/2011 | 21 | N/A | 21.7 | 20.8 | 21.7 | 21.7 | 21.7 | 22.2 | 22.0 |
| 8/30/2011 | 22 | N/A | 21.7 | 20.5 | 21.2 | 21.2 | 21.2 | 22.2 | 21.9 |
| 8/30/2011 | 23 | N/A | 21.6 | 20.3 | 20.7 | 20.7 | 20.8 | 22.1 | 21.9 |
| 8/30/2011 | 24 | N/A | 22.0 | 20.3 | 20.4 | 20.4 | 20.4 | 22.4 | 22.1 |
| 8/31/2011 | 1 | N/A | 21.5 | 20.2 | 19.8 | 19.8 | 19.8 | 22.0 | 21.7 |
| 8/31/2011 | 2 | N/A | 21.5 | 20.1 | 19.5 | 19.5 | 19.5 | 21.9 | 21.7 |
| 8/31/2011 | 3 | N/A | 21.4 | 20.0 | 19.3 | 19.3 | 19.2 | 21.9 | 21.6 |
| 8/31/2011 | 4 | N/A | 21.3 | 20.0 | 19.2 | 19.1 | 19.0 | 21.8 | 21.6 |
| 8/31/2011 | 5 | N/A | 21.3 | 19.9 | 19.1 | 19.0 | 18.9 | 21.8 | 21.5 |
| 8/31/2011 | 6 | N/A | 21.2 | 19.9 | 19.0 | 19.0 | 18.8 | 21.7 | 21.4 |
| 8/31/2011 | 7 | N/A | 21.2 | 20.0 | 18.9 | 18.9 | 18.7 | 21.7 | 21.4 |
| 8/31/2011 | 8 | N/A | 21.2 | 20.1 | 19.0 | 18.9 | 18.7 | 21.6 | 21.3 |
| 8/31/2011 | 9 | N/A | 21.2 | 20.3 | 19.1 | 18.9 | 18.8 | 21.6 | 21.3 |
| 8/31/2011 | 10 | N/A | 21.2 | 20.5 | 19.2 | 19.0 | 18.9 | 21.6 | 21.2 |
| 8/31/2011 | 11 | N/A | 21.2 | 20.8 | 19.4 | 19.2 | 19.1 | 21.6 | 21.2 |
| 8/31/2011 | 12 | N/A | 21.2 | 21.1 | 19.6 | 19.4 | 19.3 | 21.5 | 21.3 |
| 8/31/2011 | 13 | N/A | 21.4 | 21.4 | 20.0 | 19.8 | 19.7 | 21.5 | 21.3 |
| 8/31/2011 | 14 | N/A | 21.4 | 22.1 | 20.4 | 20.2 | 20.2 | 21.5 | 21.4 |
| 8/31/2011 | 15 | N/A | 21.4 | 21.9 | 20.7 | 20.6 | 20.4 | 21.6 | 21.4 |
| 8/31/2011 | 16 | N/A | 21.3 | 22.0 | 20.9 | 21.0 | 21.0 | 21.6 | 21.4 |
| 8/31/2011 | 17 | N/A | 21.3 | 21.8 | 21.3 | 21.4 | 21.3 | 21.6 | 21.5 |
| 8/31/2011 | 18 | N/A | 21.3 | 21.5 | 21.6 | 21.6 | 21.4 | 21.6 | 21.5 |
| 8/31/2011 | 19 | N/A | 21.2 | 21.1 | 21.4 | 21.4 | 21.2 | 21.6 | 21.5 |
| 8/31/2011 | 20 | N/A | 21.2 | 20.8 | 21.2 | 21.2 | 20.9 | 21.7 | 21.4 |
| 8/31/2011 | 21 | N/A | 21.2 | 20.5 | 20.9 | 20.9 | 20.7 | 21.7 | 21.4 |
| 8/31/2011 | 22 | N/A | 21.1 | 20.3 | 20.5 | 20.5 | 20.4 | 21.6 | 21.4 |
| 8/31/2011 | 23 | N/A | 21.1 | 20.1 | 20.1 | 20.1 | 20.1 | 21.6 | 21.3 |
| 8/31/2011 | 24 | N/A | 21.1 | 20.0 | 19.7 | 19.7 | 19.7 | 21.5 | 21.3 |
| 8/31/2011 | 24 | N/A | 21.6 | 20.2 | 20.2 | 20.2 | 20.3 | 22.1 | 21.8 |
| 9/1/2011 | 1 | N/A | 21.0 | 19.9 | 19.5 | 19.4 | 19.4 | 21.5 | 21.3 |
| 9/1/2011 | 2 | N/A | 21.0 | 19.8 | 19.2 | 19.2 | 19.1 | 21.5 | 21.2 |
| 9/1/2011 | 3 | N/A | 20.9 | 19.7 | 19.1 | 19.0 | 18.9 | 21.4 | 21.2 |
| 9/1/2011 | 4 | N/A | 20.9 | 19.7 | 18.9 | 18.9 | 18.7 | 21.4 | 21.1 |
| 9/1/2011 | 5 | N/A | 20.8 | 19.6 | 18.8 | 18.8 | 18.6 | 21.4 | 21.1 |
| 9/1/2011 | 6 | N/A | 20.8 | 19.6 | 18.7 | 18.6 | 18.4 | 21.4 | 21.1 |
| 9/1/2011 | 7 | N/A | 20.7 | 19.5 | 18.6 | 18.6 | 18.4 | 21.3 | 21.0 |
| 9/1/2011 | 8 | N/A | 20.8 | 19.6 | 18.7 | 18.5 | 18.4 | 21.3 | 20.9 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/1/2011 | 9 | N/A | 20.8 | 19.9 | 18.8 | 18.6 | 18.5 | 21.3 | 20.9 |
| 9/1/2011 | 10 | N/A | 20.9 | 20.3 | 18.9 | 18.7 | 18.7 | 21.3 | 20.9 |
| 9/1/2011 | 11 | N/A | 21.0 | 20.8 | 19.2 | 18.9 | 19.0 | 21.3 | 21.0 |
| 9/1/2011 | 12 | N/A | 21.0 | 21.3 | 19.4 | 19.2 | 19.7 | 21.3 | 21.0 |
| 9/1/2011 | 13 | N/A | 21.1 | 21.9 | 20.2 | 19.8 | 19.9 | 21.3 | 21.1 |
| 9/1/2011 | 14 | N/A | 21.3 | 22.3 | 20.6 | 20.4 | 20.4 | 21.3 | 21.2 |
| 9/1/2011 | 15 | N/A | 21.5 | 22.5 | 21.4 | 21.3 | 21.2 | 21.4 | 21.2 |
| 9/1/2011 | 16 | N/A | 21.5 | 22.3 | 21.6 | 21.6 | 21.5 | 21.4 | 21.3 |
| 9/1/2011 | 17 | N/A | 21.5 | 22.1 | 21.8 | 21.8 | 21.7 | 21.4 | 21.4 |
| 9/1/2011 | 18 | N/A | 21.4 | 21.4 | 21.8 | 21.8 | 21.6 | 21.5 | 21.3 |
| 9/1/2011 | 19 | N/A | 21.3 | 20.8 | 21.6 | 21.6 | 21.4 | 21.5 | 21.3 |
| 9/1/2011 | 20 | N/A | 21.2 | 20.2 | 21.2 | 21.2 | 21.1 | 21.5 | 21.3 |
| 9/1/2011 | 21 | N/A | 21.2 | 19.8 | 20.7 | 20.7 | 20.7 | 21.5 | 21.2 |
| 9/1/2011 | 22 | N/A | 21.2 | 19.6 | 20.2 | 20.2 | 20.2 | 21.5 | 21.2 |
| 9/1/2011 | 23 | N/A | 21.1 | 19.5 | 19.7 | 19.7 | 19.7 | 21.4 | 21.2 |
| 9/1/2011 | 24 | N/A | 21.1 | 19.4 | 19.3 | 19.2 | 19.2 | 21.3 | 21.1 |
| 9/2/2011 | 1 | N/A | 21.0 | 19.3 | 19.0 | 19.0 | 18.9 | 21.3 | 21.0 |
| 9/2/2011 | 2 | N/A | 20.9 | 19.3 | 18.8 | 18.8 | 18.7 | 21.2 | 20.9 |
| 9/2/2011 | 3 | N/A | 20.8 | 19.2 | 18.7 | 18.6 | 18.4 | 21.2 | 20.8 |
| 9/2/2011 | 4 | N/A | 20.8 | 19.2 | 18.5 | 18.5 | 18.4 | 21.1 | 20.8 |
| 9/2/2011 | 5 | N/A | 20.7 | 19.1 | 18.5 | 18.5 | 18.3 | 21.1 | 20.8 |
| 9/2/2011 | 6 | N/A | 20.6 | 19.0 | 18.5 | 18.4 | 18.3 | 21.1 | 20.7 |
| 9/2/2011 | 7 | N/A | 20.6 | 19.0 | 18.4 | 18.3 | 18.2 | 21.0 | 20.7 |
| 9/2/2011 | 8 | N/A | 20.7 | 19.0 | 18.4 | 18.3 | 18.2 | 21.0 | 20.7 |
| 9/2/2011 | 9 | N/A | 20.7 | 19.5 | 18.7 | 18.4 | 18.4 | 21.0 | 20.6 |
| 9/2/2011 | 10 | N/A | 20.8 | 20.0 | 18.8 | 18.5 | 18.7 | 21.0 | 20.7 |
| 9/2/2011 | 11 | N/A | 20.8 | 20.5 | 19.0 | 18.7 | 18.9 | 21.0 | 20.7 |
| 9/2/2011 | 12 | N/A | 20.9 | 21.2 | 19.4 | 19.1 | 19.3 | 21.0 | 20.7 |
| 9/2/2011 | 13 | N/A | 21.0 | 21.8 | 20.0 | 19.7 | 19.8 | 21.0 | 20.8 |
| 9/2/2011 | 14 | N/A | 21.1 | 22.2 | 20.7 | 20.4 | 20.6 | 21.1 | 20.9 |
| 9/2/2011 | 15 | N/A | 21.1 | 22.4 | 21.2 | 21.1 | 21.2 | 21.1 | 21.0 |
| 9/2/2011 | 16 | N/A | 21.0 | 22.3 | 21.5 | 21.6 | 21.7 | 21.1 | 21.0 |
| 9/2/2011 | 17 | N/A | 21.1 | 22.1 | 21.9 | 21.9 | 22.0 | 21.2 | 21.1 |
| 9/2/2011 | 18 | N/A | 21.2 | 21.6 | 21.9 | 21.9 | 21.9 | 21.2 | 21.1 |
| 9/2/2011 | 19 | N/A | 21.1 | 20.9 | 21.8 | 21.8 | 21.7 | 21.3 | 21.1 |
| 9/2/2011 | 20 | N/A | 21.1 | 20.5 | 21.4 | 21.4 | 21.5 | 21.3 | 21.1 |
| 9/2/2011 | 21 | N/A | 21.0 | 20.1 | 21.0 | 21.0 | 21.0 | 21.3 | 21.0 |
| 9/2/2011 | 22 | N/A | 21.0 | 19.8 | 20.5 | 20.5 | 20.6 | 21.3 | 21.0 |
| 9/2/2011 | 23 | N/A | 20.9 | 19.5 | 20.0 | 20.0 | 20.2 | 21.2 | 20.9 |
| 9/2/2011 | 24 | N/A | 20.8 | 19.4 | 19.6 | 19.6 | 19.7 | 21.2 | 20.9 |
| 9/3/2011 | 1 | N/A | 20.8 | 19.3 | 19.2 | 19.2 | 19.3 | 21.1 | 20.9 |
| 9/3/2011 | 2 | N/A | 20.7 | 19.3 | 18.9 | 19.0 | 18.9 | 21.1 | 20.8 |
| 9/3/2011 | 3 | N/A | 20.7 | 19.2 | 18.8 | 18.8 | 18.7 | 21.1 | 20.8 |
| 9/3/2011 | 4 | N/A | 20.6 | 19.1 | 18.6 | 18.6 | 18.5 | 21.0 | 20.7 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/3/2011 | 5 | N/A | 20.5 | 18.9 | 18.5 | 18.4 | 18.4 | 21.0 | 20.7 |
| 9/3/2011 | 6 | N/A | 20.5 | 18.9 | 18.3 | 18.3 | 18.2 | 20.9 | 20.6 |
| 9/3/2011 | 7 | N/A | 20.4 | 18.8 | 18.2 | 18.2 | 18.1 | 20.9 | 20.6 |
| 9/3/2011 | 8 | N/A | 20.5 | 18.8 | 18.2 | 18.1 | 18.0 | 20.8 | 20.5 |
| 9/3/2011 | 9 | N/A | 20.5 | 19.2 | 18.4 | 18.1 | 18.2 | 20.8 | 20.4 |
| 9/3/2011 | 10 | N/A | 20.5 | 19.7 | 18.5 | 18.2 | 18.4 | 20.7 | 20.4 |
| 9/3/2011 | 11 | N/A | 20.6 | 20.3 | 18.8 | 18.4 | 18.7 | 20.7 | 20.4 |
| 9/3/2011 | 12 | N/A | 20.6 | 20.9 | 19.2 | 18.8 | 19.0 | 20.6 | 20.3 |
| 9/3/2011 | 13 | N/A | 20.6 | 21.5 | 19.7 | 19.4 | 19.5 | 20.6 | 20.4 |
| 9/3/2011 | 14 | N/A | 20.5 | 21.9 | 20.5 | 20.2 | 20.3 | 20.5 | 20.4 |
| 9/3/2011 | 15 | N/A | 20.4 | 22.1 | 20.9 | 20.8 | 20.9 | 20.4 | 20.3 |
| 9/3/2011 | 16 | N/A | 19.8 | 22.1 | 21.2 | 21.3 | 21.5 | 20.4 | 20.2 |
| 9/3/2011 | 17 | N/A | 19.8 | 21.8 | 21.6 | 21.7 | 21.7 | 20.3 | 20.1 |
| 9/3/2011 | 18 | N/A | 19.6 | 21.3 | 21.7 | 21.7 | 21.7 | 20.3 | 20.0 |
| 9/3/2011 | 19 | N/A | 19.4 | 20.7 | 21.5 | 21.5 | 21.5 | 20.2 | 20.0 |
| 9/3/2011 | 20 | N/A | 19.5 | 20.1 | 21.2 | 21.2 | 21.2 | 20.1 | 19.9 |
| 9/3/2011 | 21 | N/A | 19.3 | 19.5 | 20.7 | 20.8 | 20.8 | 20.1 | 20.0 |
| 9/3/2011 | 22 | N/A | 19.7 | 19.1 | 20.2 | 20.2 | 20.3 | 20.2 | 20.1 |
| 9/3/2011 | 23 | N/A | 19.7 | 18.9 | 19.6 | 19.6 | 19.7 | 20.2 | 20.1 |
| 9/3/2011 | 24 | N/A | 19.8 | 18.7 | 19.0 | 19.0 | 19.2 | 20.2 | 20.2 |
| 9/4/2011 | 1 | N/A | 19.9 | 18.5 | 18.5 | 18.5 | 18.6 | 20.3 | 20.2 |
| 9/4/2011 | 2 | N/A | 19.9 | 18.4 | 18.2 | 18.2 | 18.2 | 20.3 | 20.2 |
| 9/4/2011 | 3 | N/A | 20.0 | 18.3 | 17.9 | 17.9 | 17.8 | 20.3 | 20.2 |
| 9/4/2011 | 4 | N/A | 20.0 | 18.3 | 17.6 | 17.6 | 17.6 | 20.3 | 20.1 |
| 9/4/2011 | 5 | N/A | 19.9 | 18.2 | 17.5 | 17.5 | 17.4 | 20.4 | 20.1 |
| 9/4/2011 | 6 | N/A | 19.9 | 18.2 | 17.3 | 17.3 | 17.2 | 20.4 | 20.1 |
| 9/4/2011 | 7 | N/A | 19.9 | 18.2 | 17.2 | 17.2 | 17.1 | 20.4 | 20.1 |
| 9/4/2011 | 8 | N/A | 20.0 | 18.2 | 17.3 | 17.2 | 17.1 | 20.4 | 20.0 |
| 9/4/2011 | 9 | N/A | 20.1 | 18.7 | 17.6 | 17.3 | 17.3 | 20.4 | 20.0 |
| 9/4/2011 | 10 | N/A | 20.1 | 19.3 | 17.7 | 17.4 | 17.6 | 20.5 | 20.2 |
| 9/4/2011 | 11 | N/A | 20.2 | 19.9 | 18.0 | 17.7 | 17.9 | 20.8 | 20.3 |
| 9/4/2011 | 12 | N/A | 20.2 | 20.6 | 18.5 | 18.2 | 18.3 | 21.0 | 20.5 |
| 9/4/2011 | 13 | N/A | 20.3 | 21.3 | 19.3 | 18.9 | 19.1 | 21.1 | 21.0 |
| 9/4/2011 | 14 | N/A | 20.3 | 21.8 | 20.0 | 19.8 | 19.9 | 21.1 | 21.2 |
| 9/4/2011 | 15 | N/A | 20.4 | 22.0 | 20.6 | 20.5 | 20.6 | 21.2 | N/A |
| 9/4/2011 | 16 | N/A | 20.3 | 22.1 | 21.1 | 21.2 | 21.3 | 21.2 | 21.4 |
| 9/4/2011 | 17 | N/A | 20.2 | 21.9 | 21.6 | 21.6 | 21.7 | 21.2 | 21.4 |
| 9/4/2011 | 18 | N/A | 20.2 | 21.4 | 21.8 | 21.7 | 21.8 | 21.3 | 21.3 |
| 9/4/2011 | 19 | N/A | 20.2 | 20.8 | 21.6 | 21.6 | 21.7 | 21.3 | 20.9 |
| 9/4/2011 | 20 | N/A | 20.1 | 20.3 | 21.3 | 21.3 | 21.4 | 21.2 | 20.7 |
| 9/4/2011 | 21 | N/A | 20.1 | 19.9 | 20.9 | 20.9 | 21.0 | 21.2 | 20.4 |
| 9/4/2011 | 22 | N/A | 20.1 | 19.6 | 20.3 | 20.3 | 20.5 | 21.1 | 20.3 |
| 9/4/2011 | 23 | N/A | 20.1 | 19.4 | 19.9 | 19.8 | 20.0 | 21.1 | 20.3 |
| 9/4/2011 | 24 | N/A | 20.0 | 19.2 | 19.4 | 19.4 | 19.5 | 21.0 | 20.3 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/5/2011 | 1 | N/A | 19.9 | 19.1 | 19.0 | 19.0 | 19.1 | 21.0 | 20.1 |
| 9/5/2011 | 2 | N/A | 19.9 | 18.9 | 18.7 | 18.7 | 18.7 | 21.0 | 20.1 |
| 9/5/2011 | 3 | N/A | 19.9 | 18.8 | 18.5 | 18.5 | 18.5 | 20.9 | 20.1 |
| 9/5/2011 | 4 | N/A | 19.8 | 18.7 | 18.3 | 18.3 | 18.2 | 20.9 | 20.1 |
| 9/5/2011 | 5 | N/A | 19.8 | 18.6 | 18.1 | 18.1 | 18.1 | 20.9 | 20.1 |
| 9/5/2011 | 6 | N/A | 19.8 | 18.6 | 18.0 | 17.9 | 17.9 | 20.9 | 20.0 |
| 9/5/2011 | 7 | N/A | 19.8 | 18.5 | 17.9 | 17.8 | 17.7 | 20.9 | 20.0 |
| 9/5/2011 | 8 | N/A | 19.9 | 18.6 | 17.8 | 17.7 | 17.7 | 20.9 | 19.8 |
| 9/5/2011 | 9 | N/A | 20.0 | 19.0 | 18.0 | 17.8 | 17.8 | 20.9 | 20.0 |
| 9/5/2011 | 10 | N/A | 20.0 | 19.5 | 18.1 | 17.9 | 18.1 | 20.9 | 20.0 |
| 9/5/2011 | 11 | N/A | 20.1 | 20.1 | 18.4 | 18.1 | 18.3 | 20.9 | 20.1 |
| 9/5/2011 | 12 | N/A | 20.2 | 20.9 | 18.9 | 18.5 | 18.8 | 21.0 | 20.5 |
| 9/5/2011 | 13 | N/A | 20.2 | 21.6 | 19.5 | 19.2 | 19.3 | 21.0 | 19.9 |
| 9/5/2011 | 14 | N/A | 20.3 | 22.0 | 20.3 | 20.1 | 20.2 | 21.1 | N/A |
| 9/5/2011 | 15 | N/A | 20.4 | 22.2 | 21.0 | 20.9 | 21.0 | 21.1 | N/A |
| 9/5/2011 | 16 | N/A | 20.2 | 22.2 | 21.5 | 21.5 | 21.6 | 21.2 | N/A |
| 9/5/2011 | 17 | N/A | 20.2 | 21.9 | 21.9 | 21.9 | 22.0 | 21.3 | N/A |
| 9/5/2011 | 18 | N/A | 20.2 | 21.4 | 22.0 | 22.0 | 21.9 | 21.3 | 21.1 |
| 9/5/2011 | 19 | N/A | 20.1 | 20.9 | 21.8 | 21.8 | 21.8 | 21.3 | 20.7 |
| 9/5/2011 | 20 | N/A | 20.1 | 20.4 | 21.5 | 21.4 | 21.5 | 21.2 | 20.5 |
| 9/5/2011 | 21 | N/A | 20.1 | 20.0 | 21.0 | 21.0 | 21.1 | 21.2 | N/A |
| 9/5/2011 | 22 | N/A | 20.1 | 19.7 | 20.5 | 20.5 | 20.7 | 21.1 | N/A |
| 9/5/2011 | 23 | N/A | 20.0 | 19.5 | 20.0 | 20.0 | 20.2 | 21.1 | 20.2 |
| 9/5/2011 | 24 | N/A | 20.0 | 19.3 | 19.5 | 19.5 | 19.7 | 21.0 | 20.2 |
| 9/6/2011 | 1 | N/A | 20.0 | 19.2 | 19.1 | 19.1 | 19.2 | 20.9 | 20.2 |
| 9/6/2011 | 2 | N/A | 20.1 | 19.1 | 18.8 | 18.8 | 18.9 | 20.9 | 20.2 |
| 9/6/2011 | 3 | N/A | 20.1 | 19.0 | 18.6 | 18.6 | 18.6 | 20.8 | 20.1 |
| 9/6/2011 | 4 | N/A | 20.1 | 18.9 | 18.4 | 18.4 | 18.4 | 20.7 | 20.0 |
| 9/6/2011 | 5 | N/A | 19.9 | 18.8 | 18.2 | 18.2 | 18.2 | 20.7 | 20.0 |
| 9/6/2011 | 6 | N/A | 19.8 | 18.8 | 18.1 | 18.1 | 18.0 | 20.6 | 20.0 |
| 9/6/2011 | 7 | N/A | 20.0 | 18.7 | 18.0 | 18.0 | 17.9 | 20.6 | 20.3 |
| 9/6/2011 | 8 | N/A | 20.1 | 18.8 | 18.0 | 17.9 | 17.9 | 20.6 | 20.3 |
| 9/6/2011 | 9 | N/A | 20.1 | 19.3 | 18.3 | 18.0 | 18.1 | 20.6 | 20.2 |
| 9/6/2011 | 10 | N/A | 20.2 | 19.7 | 18.5 | 18.2 | 18.3 | 20.6 | 20.1 |
| 9/6/2011 | 11 | N/A | 20.2 | 20.4 | 18.7 | 18.4 | 18.7 | 20.6 | 20.1 |
| 9/6/2011 | 12 | N/A | 20.3 | 21.1 | 19.2 | 18.8 | 19.1 | 20.6 | 20.2 |
| 9/6/2011 | 13 | N/A | 20.3 | 21.8 | 19.9 | 19.6 | 19.7 | 20.6 | 20.2 |
| 9/6/2011 | 14 | N/A | 20.4 | 22.2 | 20.7 | 20.4 | 20.5 | 20.6 | 20.3 |
| 9/6/2011 | 15 | N/A | 20.4 | 22.5 | 21.2 | 21.2 | 21.3 | 20.6 | 20.4 |
| 9/6/2011 | 16 | N/A | 20.1 | 22.4 | 21.7 | 21.8 | 21.9 | 20.6 | 20.5 |
| 9/6/2011 | 17 | N/A | 20.0 | 22.1 | 22.1 | 22.1 | 22.3 | 20.6 | 20.5 |
| 9/6/2011 | 18 | N/A | 20.2 | 21.6 | 22.3 | 22.2 | 22.3 | 20.6 | 20.6 |
| 9/6/2011 | 19 | N/A | 20.1 | 21.0 | 22.0 | 22.0 | 22.1 | 20.6 | 20.6 |
| 9/6/2011 | 20 | N/A | 20.1 | 20.4 | 21.7 | 21.7 | 21.8 | 20.7 | 20.5 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/6/2011 | 21 | N/A | 20.2 | 20.0 | 21.1 | 21.2 | 21.3 | 20.7 | 20.7 |
| 9/6/2011 | 22 | N/A | 20.1 | 19.6 | 20.6 | 20.6 | 20.8 | 20.7 | 20.6 |
| 9/6/2011 | 23 | N/A | 20.2 | 19.4 | 20.1 | 20.1 | 20.3 | 20.7 | 20.5 |
| 9/6/2011 | 24 | N/A | 20.0 | 19.3 | 19.6 | 19.6 | 19.7 | 20.7 | 20.5 |
| 9/7/2011 | 1 | N/A | 20.0 | 19.2 | 19.2 | 19.2 | 19.3 | 20.7 | 20.5 |
| 9/7/2011 | 2 | N/A | 20.0 | 19.0 | 18.9 | 18.9 | 18.9 | 20.6 | 20.5 |
| 9/7/2011 | 3 | N/A | 20.0 | 18.9 | 18.7 | 18.6 | 18.6 | 20.6 | 20.4 |
| 9/7/2011 | 4 | N/A | 19.8 | 18.8 | 18.4 | 18.4 | 18.4 | 20.6 | 20.4 |
| 9/7/2011 | 5 | N/A | 19.7 | 18.7 | 18.3 | 18.2 | 18.2 | 20.5 | 20.3 |
| 9/7/2011 | 6 | N/A | 19.6 | 18.6 | 18.2 | 18.1 | 18.1 | 20.5 | 20.2 |
| 9/7/2011 | 7 | N/A | 19.8 | 18.6 | 18.0 | 18.0 | 17.9 | 20.4 | 20.2 |
| 9/7/2011 | 8 | N/A | 19.8 | 18.6 | 18.0 | 17.9 | 17.8 | 20.5 | 20.2 |
| 9/7/2011 | 9 | N/A | 20.0 | 19.1 | 18.2 | 17.9 | 18.0 | 20.5 | 20.1 |
| 9/7/2011 | 10 | N/A | 19.8 | 19.6 | 18.4 | 18.1 | 18.2 | 20.5 | 20.1 |
| 9/7/2011 | 11 | N/A | 19.8 | 20.3 | 18.6 | 18.3 | 18.5 | 20.5 | 20.1 |
| 9/7/2011 | 12 | N/A | 19.9 | 21.1 | 19.1 | 18.7 | 19.0 | 20.5 | 20.1 |
| 9/7/2011 | 13 | N/A | 20.0 | 21.7 | 19.7 | 19.4 | 19.6 | 20.5 | 20.2 |
| 9/7/2011 | 14 | N/A | 20.1 | 22.1 | 20.5 | 20.3 | 20.4 | 20.6 | 20.3 |
| 9/7/2011 | 15 | N/A | 20.4 | 22.2 | 21.1 | 21.1 | 21.2 | 20.6 | 20.5 |
| 9/7/2011 | 16 | N/A | 20.5 | 22.1 | 21.7 | 21.7 | 21.8 | 20.7 | 20.7 |
| 9/7/2011 | 17 | N/A | 20.8 | 21.8 | 22.0 | 22.0 | 22.1 | 20.8 | 20.8 |
| 9/7/2011 | 18 | N/A | 20.8 | 21.4 | 22.0 | 22.0 | 22.1 | 20.9 | 20.9 |
| 9/7/2011 | 19 | N/A | 20.9 | 20.9 | 21.8 | 21.7 | 21.8 | 21.0 | 21.0 |
| 9/7/2011 | 20 | N/A | 21.0 | 20.6 | 21.4 | 21.4 | 21.5 | 21.1 | 21.1 |
| 9/7/2011 | 21 | N/A | 21.1 | 20.2 | 21.0 | 21.0 | 21.1 | 21.2 | 21.2 |
| 9/7/2011 | 22 | N/A | 21.2 | 20.0 | 20.5 | 20.5 | 20.7 | 21.3 | 21.2 |
| 9/7/2011 | 23 | N/A | 21.2 | 19.9 | 20.1 | 20.1 | 20.2 | 21.4 | 21.2 |
| 9/7/2011 | 24 | N/A | 21.2 | 19.8 | 19.7 | 19.7 | 19.8 | 21.3 | 21.2 |
| 9/8/2011 | 1 | N/A | 21.0 | 19.8 | 19.5 | 19.4 | 19.5 | 21.2 | 21.1 |
| 9/8/2011 | 2 | N/A | 20.8 | 19.7 | 19.2 | 19.2 | 19.2 | 21.2 | 21.0 |
| 9/8/2011 | 3 | N/A | 20.7 | 19.7 | 19.1 | 19.0 | 19.0 | 21.1 | 20.8 |
| 9/8/2011 | 4 | N/A | 20.6 | 19.6 | 18.9 | 18.9 | 18.9 | 21.0 | 20.7 |
| 9/8/2011 | 5 | N/A | 20.5 | 19.5 | 18.8 | 18.8 | 18.7 | 20.9 | 20.7 |
| 9/8/2011 | 6 | N/A | 20.4 | 19.4 | 18.7 | 18.7 | 18.6 | 20.8 | 20.6 |
| 9/8/2011 | 7 | N/A | 20.3 | 19.3 | 18.6 | 18.6 | 18.5 | 20.8 | 20.5 |
| 9/8/2011 | 8 | N/A | 20.4 | 19.3 | 18.7 | 18.5 | 18.5 | 20.8 | 20.4 |
| 9/8/2011 | 9 | N/A | 20.5 | 19.6 | 18.7 | 18.5 | 18.6 | 20.8 | 20.4 |
| 9/8/2011 | 10 | N/A | 20.5 | 20.1 | 19.0 | 18.7 | 18.8 | 20.8 | 20.4 |
| 9/8/2011 | 11 | N/A | 20.7 | 20.7 | 19.2 | 18.9 | 19.2 | 20.9 | 20.5 |
| 9/8/2011 | 12 | N/A | 20.8 | 21.4 | 19.6 | 19.3 | 19.6 | 20.9 | 20.6 |
| 9/8/2011 | 13 | N/A | 20.9 | 21.9 | 20.1 | 19.9 | 20.0 | 20.9 | 20.7 |
| 9/8/2011 | 14 | N/A | 20.8 | 22.1 | 20.9 | 20.7 | 20.6 | 20.9 | 20.8 |
| 9/8/2011 | 15 | N/A | 20.9 | 22.3 | 21.5 | 21.3 | 21.5 | 20.9 | 20.8 |
| 9/8/2011 | 16 | N/A | 20.8 | 22.2 | 21.8 | 21.8 | 21.9 | 20.9 | 20.9 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/8/2011 | 17 | N/A | 20.7 | 22.0 | 22.1 | 22.0 | 22.2 | 21.0 | 21.0 |
| 9/8/2011 | 18 | N/A | 20.7 | 21.6 | 22.1 | 22.0 | 22.1 | 21.0 | 21.0 |
| 9/8/2011 | 19 | N/A | 20.5 | 21.2 | 21.9 | 21.9 | 21.9 | 21.0 | 20.9 |
| 9/8/2011 | 20 | N/A | 20.5 | 20.7 | 21.6 | 21.6 | 21.7 | 21.0 | 20.9 |
| 9/8/2011 | 21 | N/A | 20.4 | 20.4 | 21.2 | 21.2 | 21.3 | 21.0 | 20.9 |
| 9/8/2011 | 22 | N/A | 20.4 | 20.2 | 20.8 | 20.8 | 20.9 | 21.0 | 20.8 |
| 9/8/2011 | 23 | N/A | 20.4 | 20.0 | 20.4 | 20.3 | 20.5 | 21.0 | 20.8 |
| 9/8/2011 | 24 | N/A | 20.4 | 19.9 | 20.0 | 20.0 | 20.1 | 21.0 | 20.9 |
| 9/9/2011 | 1 | N/A | 20.4 | 19.8 | 19.7 | 19.7 | 19.7 | 21.0 | 20.9 |
| 9/9/2011 | 2 | N/A | 20.5 | 19.7 | 19.5 | 19.4 | 19.5 | 20.9 | 20.9 |
| 9/9/2011 | 3 | N/A | 20.5 | 19.6 | 19.2 | 19.2 | 19.2 | 20.9 | 20.8 |
| 9/9/2011 | 4 | N/A | 20.5 | 19.5 | 19.1 | 19.1 | 19.1 | 20.9 | 20.8 |
| 9/9/2011 | 5 | N/A | 20.4 | 19.6 | 19.0 | 18.9 | 18.9 | 20.9 | 20.8 |
| 9/9/2011 | 6 | N/A | 20.3 | 19.4 | 18.8 | 18.8 | 18.8 | 20.9 | 20.7 |
| 9/9/2011 | 7 | N/A | 20.2 | 19.4 | 18.7 | 18.7 | 18.6 | 20.9 | 20.6 |
| 9/9/2011 | 8 | N/A | 20.2 | 19.4 | 18.7 | 18.6 | 18.6 | 20.9 | 20.5 |
| 9/9/2011 | 9 | N/A | 20.4 | 19.8 | 18.9 | 18.7 | 18.8 | 20.9 | 20.5 |
| 9/9/2011 | 10 | N/A | 20.4 | 20.3 | 19.1 | 18.8 | 19.0 | 20.9 | 20.5 |
| 9/9/2011 | 11 | N/A | 20.4 | 20.9 | 19.3 | 19.1 | 19.3 | 20.9 | 20.5 |
| 9/9/2011 | 12 | N/A | 20.4 | 21.5 | 19.7 | 19.4 | 19.7 | 20.9 | 20.6 |
| 9/9/2011 | 13 | N/A | 20.5 | 22.1 | 20.4 | 20.1 | 20.3 | 20.9 | 20.6 |
| 9/9/2011 | 14 | N/A | 20.5 | 22.5 | 21.1 | 20.9 | 21.1 | 20.9 | 20.7 |
| 9/9/2011 | 15 | N/A | 20.6 | 22.6 | 21.7 | 21.7 | 21.8 | 20.9 | 20.8 |
| 9/9/2011 | 16 | N/A | 20.5 | 22.6 | 22.2 | 22.2 | 22.4 | 20.9 | 20.8 |
| 9/9/2011 | 17 | N/A | 20.4 | 22.3 | 22.5 | 22.5 | 22.7 | 20.9 | 20.9 |
| 9/9/2011 | 18 | N/A | 20.4 | 21.8 | 22.6 | 22.6 | 22.7 | 20.9 | 20.9 |
| 9/9/2011 | 19 | N/A | 20.4 | 21.3 | 22.4 | 22.4 | 22.5 | 20.9 | 20.9 |
| 9/9/2011 | 20 | N/A | 20.2 | 20.9 | 22.1 | 22.1 | 22.2 | 20.9 | 20.8 |
| 9/9/2011 | 21 | N/A | 20.4 | 20.5 | 21.7 | 21.6 | 21.8 | 20.9 | 20.9 |
| 9/9/2011 | 22 | N/A | 20.2 | 20.2 | 21.2 | 21.1 | 21.3 | 21.0 | 20.8 |
| 9/9/2011 | 23 | N/A | 20.1 | 20.0 | 20.7 | 20.6 | 20.8 | 21.0 | 20.7 |
| 9/9/2011 | 24 | N/A | 20.0 | 19.9 | 20.2 | 20.2 | 20.3 | 20.9 | 20.8 |
| 9/10/2011 | 1 | N/A | 20.1 | 19.8 | 19.8 | 19.8 | 19.9 | 20.9 | 20.7 |
| 9/10/2011 | 2 | N/A | 20.0 | 19.7 | 19.5 | 19.5 | 19.6 | 20.9 | 20.7 |
| 9/10/2011 | 3 | N/A | 20.2 | 19.6 | 19.3 | 19.3 | 19.3 | 20.9 | 20.7 |
| 9/10/2011 | 4 | N/A | 20.2 | 19.5 | 19.1 | 19.1 | 19.1 | 20.9 | 20.7 |
| 9/10/2011 | 5 | N/A | 20.1 | 19.4 | 18.9 | 18.9 | 18.9 | 20.8 | 20.7 |
| 9/10/2011 | 6 | N/A | 19.9 | 19.3 | 18.8 | 18.7 | 18.7 | 20.8 | 20.6 |
| 9/10/2011 | 7 | N/A | 20.0 | 19.3 | 18.6 | 18.6 | 18.6 | 20.8 | 20.6 |
| 9/10/2011 | 8 | N/A | 20.1 | 19.3 | 18.6 | 18.5 | 18.5 | 20.8 | 20.5 |
| 9/10/2011 | 9 | N/A | 20.1 | 19.7 | 18.8 | 18.6 | 18.6 | 20.8 | 20.5 |
| 9/10/2011 | 10 | N/A | 20.1 | 20.2 | 19.0 | 18.7 | 18.9 | 20.8 | 20.5 |
| 9/10/2011 | 11 | N/A | 20.3 | 20.8 | 19.2 | 18.9 | 19.2 | 20.8 | 20.5 |
| 9/10/2011 | 12 | N/A | 20.4 | 21.4 | 19.6 | 19.2 | 19.6 | 20.9 | 20.5 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/10/2011 | 13 | N/A | 20.3 | 22.0 | 20.2 | 19.9 | 20.1 | 20.9 | 20.7 |
| 9/10/2011 | 14 | N/A | 20.5 | 22.3 | 20.9 | 20.7 | 20.9 | 20.9 | 20.7 |
| 9/10/2011 | 15 | N/A | 20.6 | 22.4 | 21.6 | 21.5 | 21.6 | 20.9 | 20.8 |
| 9/10/2011 | 16 | N/A | 20.6 | 22.4 | 22.1 | 22.1 | 22.2 | 21.0 | 21.0 |
| 9/10/2011 | 17 | N/A | 20.6 | 22.2 | 22.4 | 22.4 | 22.5 | 21.0 | 21.1 |
| 9/10/2011 | 18 | N/A | 20.6 | 21.7 | 22.5 | 22.5 | 22.5 | 21.1 | 21.1 |
| 9/10/2011 | 19 | N/A | 20.8 | 21.2 | 22.2 | 22.3 | 22.3 | 21.1 | 21.2 |
| 9/10/2011 | 20 | N/A | 20.6 | 20.8 | 21.9 | 21.9 | 22.0 | 21.2 | 21.2 |
| 9/10/2011 | 21 | N/A | 20.7 | 20.5 | 21.4 | 21.4 | 21.6 | 21.2 | 21.1 |
| 9/10/2011 | 22 | N/A | 20.7 | 20.2 | 20.9 | 20.9 | 21.1 | 21.3 | 21.1 |
| 9/10/2011 | 23 | N/A | 20.6 | 20.1 | 20.4 | 20.4 | 20.6 | 21.2 | 21.0 |
| 9/10/2011 | 24 | N/A | 20.5 | 19.9 | 20.0 | 20.0 | 20.1 | 21.2 | 21.0 |
| 9/11/2011 | 1 | N/A | 20.3 | 19.8 | 19.7 | 19.7 | 19.7 | 21.1 | 20.9 |
| 9/11/2011 | 2 | N/A | 20.3 | 19.7 | 19.4 | 19.4 | 19.4 | 21.1 | 20.9 |
| 9/11/2011 | 3 | N/A | 20.3 | 19.6 | 19.2 | 19.2 | 19.2 | 21.0 | 20.8 |
| 9/11/2011 | 4 | N/A | 20.2 | 19.5 | 19.0 | 19.0 | 19.0 | 20.9 | 20.7 |
| 9/11/2011 | 5 | N/A | 20.1 | 19.3 | 18.9 | 18.8 | 18.8 | 20.9 | 20.7 |
| 9/11/2011 | 6 | N/A | 20.0 | 19.3 | 18.7 | 18.7 | 18.6 | 20.8 | 20.6 |
| 9/11/2011 | 7 | N/A | 20.0 | 19.2 | 18.6 | 18.5 | 18.5 | 20.9 | 20.5 |
| 9/11/2011 | 8 | N/A | 20.2 | 19.3 | 18.5 | 18.4 | 18.4 | 20.9 | 20.5 |
| 9/11/2011 | 9 | N/A | 20.3 | 19.6 | 18.7 | 18.5 | 18.5 | 20.9 | 20.5 |
| 9/11/2011 | 10 | N/A | 20.4 | 20.0 | 18.9 | 18.6 | 18.7 | 20.9 | 20.6 |
| 9/11/2011 | 11 | N/A | 20.5 | 20.6 | 19.1 | 18.8 | 19.0 | 20.9 | 20.7 |
| 9/11/2011 | 12 | N/A | 20.6 | 21.2 | 19.4 | 19.1 | 19.4 | 21.0 | 20.8 |
| 9/11/2011 | 13 | N/A | 20.7 | 21.4 | 21.3 | 21.2 | 21.2 | 21.0 | 20.8 |
| 9/11/2011 | 14 | N/A | 20.7 | 21.6 | 21.6 | 21.5 | 21.6 | 21.0 | 20.9 |
| 9/11/2011 | 15 | N/A | 20.8 | 21.5 | 21.7 | 21.7 | 21.8 | 21.0 | 21.0 |
| 9/11/2011 | 16 | N/A | 20.8 | 21.4 | 21.7 | 21.6 | 21.8 | 21.1 | 21.0 |
| 9/11/2011 | 17 | N/A | 20.7 | 21.3 | 21.5 | 21.5 | 21.6 | 21.1 | 21.1 |
| 9/11/2011 | 18 | N/A | 20.7 | 20.9 | 21.4 | 21.3 | 21.4 | 21.2 | 21.1 |
| 9/11/2011 | 19 | N/A | 20.6 | 20.6 | 20.9 | 20.9 | 21.0 | 21.2 | 21.1 |
| 9/11/2011 | 20 | N/A | 20.8 | 20.4 | 20.7 | 20.6 | 20.7 | 21.2 | 21.0 |
| 9/11/2011 | 21 | N/A | 20.7 | 20.3 | 20.5 | 20.4 | 20.4 | 21.3 | 21.1 |
| 9/11/2011 | 22 | N/A | 20.8 | 20.3 | 20.4 | 20.3 | 20.3 | 21.3 | 21.1 |
| 9/11/2011 | 23 | N/A | 20.7 | 20.3 | 20.3 | 20.3 | 20.3 | 21.3 | 21.1 |
| 9/11/2011 | 24 | N/A | 20.7 | 20.3 | 20.3 | 20.2 | 20.2 | 21.2 | 21.0 |
| 9/12/2011 | 1 | N/A | 20.7 | 20.2 | 20.2 | 20.2 | 20.2 | 21.2 | 21.0 |
| 9/12/2011 | 2 | N/A | 20.6 | 20.1 | 20.1 | 20.1 | 20.1 | 21.2 | 21.0 |
| 9/12/2011 | 3 | N/A | 20.7 | 20.1 | 20.1 | 20.0 | 20.0 | 21.1 | 20.9 |
| 9/12/2011 | 4 | N/A | 20.6 | 20.0 | 20.0 | 19.9 | 20.0 | 21.1 | 20.9 |
| 9/12/2011 | 5 | N/A | 20.5 | 20.0 | 20.0 | 19.9 | 19.9 | 21.1 | 20.8 |
| 9/12/2011 | 6 | N/A | 20.5 | 19.9 | 19.9 | 19.8 | 19.8 | 21.0 | 20.7 |
| 9/12/2011 | 7 | N/A | 20.5 | 19.9 | 19.8 | 19.8 | 19.8 | 21.0 | 20.7 |
| 9/12/2011 | 8 | N/A | 20.6 | 19.9 | 19.8 | 19.7 | 19.7 | 21.0 | 20.6 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/12/2011 | 9 | N/A | 20.7 | 20.2 | 19.9 | 19.8 | 19.8 | 21.0 | 20.7 |
| 9/12/2011 | 10 | N/A | 20.7 | 20.7 | 20.2 | 20.1 | 20.1 | 21.0 | 20.7 |
| 9/12/2011 | 11 | N/A | 20.7 | 21.1 | 20.6 | 20.5 | 20.5 | 21.0 | 20.8 |
| 9/12/2011 | 12 | N/A | 20.7 | 21.5 | 21.1 | 21.0 | 21.0 | 21.0 | 20.8 |
| 9/12/2011 | 13 | N/A | 20.7 | 21.9 | 21.6 | 21.5 | 21.6 | 21.0 | 20.8 |
| 9/12/2011 | 14 | N/A | 20.7 | 22.0 | 22.0 | 21.9 | 22.1 | 21.0 | 20.9 |
| 9/12/2011 | 15 | N/A | 20.8 | 22.1 | 22.2 | 22.1 | 22.4 | 21.1 | 21.0 |
| 9/12/2011 | 16 | N/A | 20.7 | 22.0 | 22.2 | 22.2 | 22.4 | 21.2 | 21.1 |
| 9/12/2011 | 17 | N/A | 20.7 | 21.8 | 22.2 | 22.2 | 22.3 | 21.2 | 21.2 |
| 9/12/2011 | 18 | N/A | 20.6 | 21.4 | 22.0 | 21.9 | 22.0 | 21.3 | 21.1 |
| 9/12/2011 | 19 | N/A | 20.6 | 21.0 | 21.7 | 21.6 | 21.6 | 21.3 | 21.2 |
| 9/12/2011 | 20 | N/A | 20.7 | 20.7 | 21.3 | 21.3 | 21.3 | 21.4 | 21.2 |
| 9/12/2011 | 21 | N/A | 20.7 | 20.3 | 21.0 | 21.0 | 21.0 | 21.5 | 21.3 |
| 9/12/2011 | 22 | N/A | 20.9 | 20.1 | 20.6 | 20.6 | 20.7 | 21.5 | 21.3 |
| 9/12/2011 | 23 | N/A | 21.0 | 19.9 | 20.3 | 20.2 | 20.3 | 21.5 | 21.4 |
| 9/12/2011 | 24 | N/A | 21.1 | 19.8 | 19.9 | 19.9 | 20.0 | 21.5 | 21.4 |
| 9/13/2011 | 1 | N/A | 21.2 | 19.8 | 19.6 | 19.6 | 19.7 | 21.5 | 21.4 |
| 9/13/2011 | 2 | N/A | 21.3 | 19.7 | 19.5 | 19.4 | 19.4 | 21.5 | 21.5 |
| 9/13/2011 | 3 | N/A | 21.5 | 19.7 | 19.3 | 19.3 | 19.2 | 21.6 | 21.5 |
| 9/13/2011 | 4 | N/A | 21.5 | 19.7 | 19.2 | 19.2 | 19.1 | 21.6 | 21.4 |
| 9/13/2011 | 5 | N/A | 21.4 | 19.7 | 19.1 | 19.1 | 19.0 | 21.6 | 21.4 |
| 9/13/2011 | 6 | N/A | 21.3 | 19.7 | 19.1 | 19.0 | 19.0 | 21.6 | 21.4 |
| 9/13/2011 | 7 | N/A | 21.3 | 19.7 | 19.0 | 19.0 | 18.9 | 21.6 | 21.3 |
| 9/13/2011 | 8 | N/A | 21.4 | 19.7 | 19.0 | 18.9 | 18.9 | 21.6 | 21.3 |
| 9/13/2011 | 9 | N/A | 21.4 | 20.1 | 19.2 | 19.0 | 19.0 | 21.6 | 21.3 |
| 9/13/2011 | 10 | N/A | 21.5 | 20.5 | 19.4 | 19.2 | 19.3 | 21.6 | 21.4 |
| 9/13/2011 | 11 | N/A | 21.6 | 21.2 | 19.8 | 19.5 | 19.7 | 21.6 | 21.4 |
| 9/13/2011 | 12 | N/A | 21.7 | 21.8 | 20.0 | 19.8 | 20.0 | 21.6 | 21.4 |
| 9/13/2011 | 13 | N/A | 21.7 | 22.1 | 20.6 | 20.3 | 20.4 | 21.6 | 21.4 |
| 9/13/2011 | 14 | N/A | 21.4 | 22.1 | 21.2 | 21.1 | 21.0 | 21.6 | 21.3 |
| 9/13/2011 | 15 | N/A | 21.3 | 22.1 | 21.7 | 21.6 | 21.6 | 21.5 | 21.3 |
| 9/13/2011 | 16 | N/A | 21.2 | 22.1 | 21.9 | 21.8 | 21.9 | 21.5 | 21.3 |
| 9/13/2011 | 17 | N/A | 21.0 | 21.8 | 22.0 | 21.9 | 22.0 | 21.5 | 21.3 |
| 9/13/2011 | 18 | N/A | 20.8 | 21.6 | 22.0 | 21.9 | 22.0 | 21.4 | 21.2 |
| 9/13/2011 | 19 | N/A | 20.7 | 21.1 | 21.8 | 21.7 | 21.8 | 21.4 | 21.2 |
| 9/13/2011 | 20 | N/A | 20.8 | 20.7 | 21.5 | 21.4 | 21.5 | 21.4 | 21.2 |
| 9/13/2011 | 21 | N/A | 20.7 | 20.4 | 21.2 | 21.1 | 21.2 | 21.4 | 21.2 |
| 9/13/2011 | 22 | N/A | 20.7 | 20.1 | 20.7 | 20.7 | 20.9 | 21.3 | 21.2 |
| 9/13/2011 | 23 | N/A | 20.9 | 19.9 | 20.4 | 20.3 | 20.5 | 21.3 | 21.2 |
| 9/13/2011 | 24 | N/A | 20.8 | 19.7 | 20.0 | 20.0 | 20.1 | 21.3 | 21.2 |
| 9/14/2011 | 1 | N/A | 20.8 | 19.6 | 19.7 | 19.7 | 19.7 | 21.3 | 21.1 |
| 9/14/2011 | 2 | N/A | 20.8 | 19.5 | 19.4 | 19.4 | 19.4 | 21.3 | 21.1 |
| 9/14/2011 | 3 | N/A | 20.9 | 19.5 | 19.2 | 19.2 | 19.2 | 21.2 | 21.1 |
| 9/14/2011 | 4 | N/A | 20.8 | 19.4 | 19.0 | 19.0 | 19.0 | 21.2 | 21.1 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/14/2011 | 5 | N/A | 20.8 | 19.2 | 18.9 | 18.9 | 18.8 | 21.2 | 21.0 |
| 9/14/2011 | 6 | N/A | 20.8 | 19.2 | 18.7 | 18.7 | 18.7 | 21.2 | 21.0 |
| 9/14/2011 | 7 | N/A | 20.8 | 19.1 | 18.6 | 18.6 | 18.5 | 21.2 | 20.9 |
| 9/14/2011 | 8 | N/A | 20.8 | 19.1 | 18.6 | 18.5 | 18.4 | 21.2 | 20.9 |
| 9/14/2011 | 9 | N/A | 20.9 | 19.5 | 18.8 | 18.5 | 18.6 | 21.2 | 20.8 |
| 9/14/2011 | 10 | N/A | 21.0 | 20.0 | 18.9 | 18.6 | 18.8 | 21.2 | 20.8 |
| 9/14/2011 | 11 | N/A | 21.1 | 20.6 | 19.1 | 18.8 | 19.0 | 21.2 | 20.9 |
| 9/14/2011 | 12 | N/A | 21.2 | 21.2 | 19.4 | 19.1 | 19.4 | 21.2 | 21.0 |
| 9/14/2011 | 13 | N/A | 21.3 | 21.9 | 20.1 | 19.7 | 19.9 | 21.2 | 21.1 |
| 9/14/2011 | 14 | N/A | 21.5 | 22.3 | 20.6 | 20.5 | 20.6 | 21.3 | 21.2 |
| 9/14/2011 | 15 | N/A | 21.6 | 22.7 | 21.2 | 21.2 | 21.3 | 21.3 | 21.3 |
| 9/14/2011 | 16 | N/A | 21.6 | 22.7 | 21.7 | 21.8 | 21.8 | 21.3 | 21.4 |
| 9/14/2011 | 17 | N/A | 21.5 | 22.4 | 22.2 | 22.2 | 22.2 | 21.3 | 21.4 |
| 9/14/2011 | 18 | N/A | 21.3 | 21.8 | 22.3 | 22.3 | 22.2 | 21.4 | 21.4 |
| 9/14/2011 | 19 | N/A | 21.1 | 21.4 | 22.3 | 22.2 | 22.2 | 21.4 | 21.3 |
| 9/14/2011 | 20 | N/A | 21.0 | 21.0 | 21.9 | 21.9 | 21.9 | 21.4 | 21.3 |
| 9/14/2011 | 21 | N/A | 21.0 | 20.5 | 21.4 | 21.4 | 21.5 | 21.5 | 21.3 |
| 9/14/2011 | 22 | N/A | 21.0 | 20.2 | 21.0 | 21.0 | 21.1 | 21.6 | 21.2 |
| 9/14/2011 | 23 | N/A | 20.9 | 20.0 | 20.5 | 20.5 | 20.7 | 21.8 | 21.2 |
| 9/14/2011 | 24 | N/A | 20.9 | 19.8 | 20.1 | 20.1 | 20.2 | 21.7 | 20.9 |
| 9/15/2011 | 1 | N/A | 20.9 | 19.7 | 19.7 | 19.7 | 19.8 | 21.7 | 20.8 |
| 9/15/2011 | 2 | N/A | 20.8 | 19.5 | 19.5 | 19.4 | 19.4 | 21.6 | 21.0 |
| 9/15/2011 | 3 | N/A | 20.8 | 19.3 | 19.2 | 19.2 | 19.2 | 21.6 | 20.8 |
| 9/15/2011 | 4 | N/A | 20.8 | 19.1 | 19.0 | 19.0 | 18.9 | 21.5 | 20.7 |
| 9/15/2011 | 5 | N/A | 20.8 | 19.1 | 18.8 | 18.8 | 18.7 | 21.5 | 20.7 |
| 9/15/2011 | 6 | N/A | 20.8 | 19.0 | 18.6 | 18.6 | 18.5 | 21.4 | 20.7 |
| 9/15/2011 | 7 | N/A | 20.8 | 19.0 | 18.4 | 18.4 | 18.3 | 21.4 | 20.9 |
| 9/15/2011 | 8 | N/A | 20.9 | 19.0 | 18.3 | 18.3 | 18.2 | 21.3 | 20.9 |
| 9/15/2011 | 9 | N/A | 20.9 | 19.2 | 18.4 | 18.3 | 18.2 | 21.3 | 20.9 |
| 9/15/2011 | 10 | N/A | 21.0 | 19.7 | 18.6 | 18.4 | 18.5 | 21.2 | 20.8 |
| 9/15/2011 | 11 | N/A | 20.9 | 20.0 | 18.6 | 18.5 | 18.5 | 21.2 | 20.8 |
| 9/15/2011 | 12 | N/A | 21.1 | 20.6 | 19.1 | 18.9 | 19.0 | 21.2 | 20.8 |
| 9/15/2011 | 13 | N/A | 21.1 | 21.4 | 19.6 | 19.3 | 19.5 | 21.1 | 20.8 |
| 9/15/2011 | 14 | N/A | 21.1 | 21.7 | 19.9 | 19.8 | 19.9 | 21.1 | 20.9 |
| 9/15/2011 | 15 | N/A | 21.2 | 21.8 | 20.4 | 20.4 | 20.4 | 21.1 | 20.9 |
| 9/15/2011 | 16 | N/A | 21.0 | 21.6 | 20.9 | 20.8 | 20.6 | 21.0 | 21.0 |
| 9/15/2011 | 17 | N/A | 20.9 | 21.2 | 21.0 | 21.0 | 20.8 | 21.0 | 20.9 |
| 9/15/2011 | 18 | N/A | 20.9 | 20.7 | 20.9 | 20.9 | 20.7 | 21.0 | 20.9 |
| 9/15/2011 | 19 | N/A | 20.8 | 20.2 | 20.7 | 20.6 | 20.5 | 21.0 | 20.9 |
| 9/15/2011 | 20 | N/A | 20.8 | 19.8 | 20.3 | 20.3 | 20.1 | 21.0 | 20.9 |
| 9/15/2011 | 21 | N/A | 20.8 | 19.5 | 19.9 | 19.9 | 19.7 | 21.0 | 20.8 |
| 9/15/2011 | 22 | N/A | 20.7 | 19.3 | 19.5 | 19.5 | 19.4 | 21.0 | 20.8 |
| 9/15/2011 | 23 | N/A | 20.7 | 19.3 | 19.1 | 19.1 | 19.0 | 21.1 | N/A |
| 9/15/2011 | 24 | N/A | 20.6 | 19.1 | 18.8 | 18.8 | 18.7 | 21.3 | N/A |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/16/2011 | 1 | N/A | 20.6 | 19.0 | 18.5 | 18.5 | 18.4 | 21.3 | 20.4 |
| 9/16/2011 | 2 | N/A | 20.5 | 18.9 | 18.4 | 18.4 | 18.3 | 21.2 | 20.4 |
| 9/16/2011 | 3 | N/A | 20.5 | 18.8 | 18.3 | 18.2 | 18.2 | 21.1 | N/A |
| 9/16/2011 | 4 | N/A | 20.4 | 18.8 | 18.1 | 18.1 | 18.0 | 21.1 | 20.3 |
| 9/16/2011 | 5 | N/A | 20.4 | 18.7 | 17.9 | 17.9 | 17.8 | 21.0 | N/A |
| 9/16/2011 | 6 | N/A | 20.3 | 18.7 | 17.8 | 17.8 | 17.7 | 20.9 | N/A |
| 9/16/2011 | 7 | N/A | 20.3 | 18.6 | 17.7 | 17.7 | 17.6 | 20.9 | 20.5 |
| 9/16/2011 | 8 | N/A | 20.3 | 18.6 | 17.7 | 17.7 | 17.5 | 20.8 | 20.4 |
| 9/16/2011 | 9 | N/A | 20.3 | 19.0 | 17.9 | 17.7 | 17.7 | 20.8 | 20.3 |
| 9/16/2011 | 10 | N/A | 20.4 | 19.4 | 18.1 | 17.8 | 17.9 | 20.8 | 20.2 |
| 9/16/2011 | 11 | N/A | 20.4 | 19.8 | 18.1 | 17.9 | 18.0 | 20.7 | 20.2 |
| 9/16/2011 | 12 | N/A | 20.4 | 20.3 | 18.4 | 18.2 | 18.3 | 20.7 | 20.2 |
| 9/16/2011 | 13 | N/A | 20.6 | 20.7 | 19.0 | 18.7 | 18.7 | 20.6 | 20.3 |
| 9/16/2011 | 14 | N/A | 20.6 | 21.1 | 19.3 | 19.2 | 19.3 | 20.6 | 20.4 |
| 9/16/2011 | 15 | N/A | 20.5 | 21.0 | 19.8 | 19.7 | 19.6 | 20.6 | 20.4 |
| 9/16/2011 | 16 | N/A | 20.5 | 20.8 | 20.1 | 20.1 | 19.9 | 20.6 | 20.4 |
| 9/16/2011 | 17 | N/A | 20.4 | 20.3 | 20.2 | 20.2 | 19.9 | 20.6 | 20.5 |
| 9/16/2011 | 18 | N/A | 20.4 | 19.8 | 20.1 | 20.0 | 19.8 | 20.7 | 20.5 |
| 9/16/2011 | 19 | N/A | 20.3 | 19.4 | 19.7 | 19.7 | 19.5 | 20.7 | 20.4 |
| 9/16/2011 | 20 | N/A | 20.3 | 19.1 | 19.2 | 19.2 | 19.1 | 20.7 | 20.4 |
| 9/16/2011 | 21 | N/A | 20.2 | 18.9 | 18.8 | 18.8 | 18.6 | 20.7 | 20.3 |
| 9/16/2011 | 22 | N/A | 20.2 | 18.7 | 18.4 | 18.4 | 18.4 | 20.8 | 20.3 |
| 9/16/2011 | 23 | N/A | 20.1 | 18.6 | 18.2 | 18.2 | 18.1 | 20.8 | 20.2 |
| 9/16/2011 | 24 | N/A | 20.1 | 18.5 | 18.0 | 17.9 | 17.9 | 20.8 | N/A |
| 9/17/2011 | 1 | N/A | 20.0 | 18.4 | 17.8 | 17.7 | 17.6 | 20.8 | 20.0 |
| 9/17/2011 | 2 | N/A | 20.0 | 18.5 | 17.6 | 17.6 | 17.4 | 20.8 | 20.0 |
| 9/17/2011 | 3 | N/A | 19.9 | 18.4 | 17.4 | 17.4 | 17.3 | 20.8 | 19.9 |
| 9/17/2011 | 4 | N/A | 19.9 | 18.4 | 17.4 | 17.3 | 17.2 | 20.8 | 19.9 |
| 9/17/2011 | 5 | N/A | 19.9 | 18.4 | 17.3 | 17.3 | 17.1 | 20.8 | 19.9 |
| 9/17/2011 | 6 | N/A | 19.9 | 18.4 | 17.3 | 17.3 | 17.1 | 20.7 | 19.8 |
| 9/17/2011 | 7 | N/A | 19.8 | 18.3 | 17.3 | 17.2 | 17.1 | 20.4 | 20.0 |
| 9/17/2011 | 8 | N/A | 19.8 | 18.4 | 17.3 | 17.3 | 17.2 | 20.3 | 19.9 |
| 9/17/2011 | 9 | N/A | 19.8 | 18.6 | 17.4 | 17.3 | 17.2 | 20.3 | 19.8 |
| 9/17/2011 | 10 | N/A | 19.8 | 18.7 | 17.4 | 17.4 | 17.3 | 20.2 | 19.7 |
| 9/17/2011 | 11 | N/A | 19.7 | 18.9 | 17.5 | 17.5 | 17.4 | 20.2 | 19.7 |
| 9/17/2011 | 12 | N/A | 19.7 | 19.1 | 17.8 | 17.7 | 17.6 | 20.1 | 19.7 |
| 9/17/2011 | 13 | N/A | 19.8 | 19.4 | 18.1 | 17.9 | 17.9 | 20.0 | 19.7 |
| 9/17/2011 | 14 | N/A | 19.8 | 19.5 | 18.2 | 18.1 | 18.1 | 20.0 | 19.7 |
| 9/17/2011 | 15 | N/A | 19.7 | 19.5 | 18.4 | 18.3 | 18.2 | 19.9 | 19.7 |
| 9/17/2011 | 16 | N/A | 19.7 | 19.5 | 18.6 | 18.5 | 18.5 | 19.9 | 19.7 |
| 9/17/2011 | 17 | N/A | 19.7 | 19.3 | 18.7 | 18.6 | 18.5 | 20.0 | 19.7 |
| 9/17/2011 | 18 | N/A | 19.7 | 19.1 | 18.7 | 18.7 | 18.6 | 20.0 | 19.7 |
| 9/17/2011 | 19 | N/A | 19.6 | 19.1 | 18.6 | 18.6 | 18.5 | 20.0 | 19.7 |
| 9/17/2011 | 20 | N/A | 19.6 | 18.9 | 18.5 | 18.4 | 18.3 | 20.1 | 19.7 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/17/2011 | 21 | N/A | 19.6 | 18.7 | 18.3 | 18.3 | 18.2 | 20.1 | 19.6 |
| 9/17/2011 | 22 | N/A | 19.5 | 18.6 | 18.2 | 18.1 | 18.0 | 20.1 | 19.6 |
| 9/17/2011 | 23 | N/A | 19.5 | 18.4 | 17.9 | 17.9 | 17.7 | 20.1 | 19.4 |
| 9/17/2011 | 24 | N/A | 19.5 | 18.3 | 17.7 | 17.7 | 17.5 | 20.1 | 19.6 |
| 9/18/2011 | 1 | N/A | 19.4 | 18.2 | 17.5 | 17.5 | 17.4 | 20.1 | N/A |
| 9/18/2011 | 2 | N/A | 19.4 | 18.2 | 17.4 | 17.3 | 17.3 | 20.2 | 19.7 |
| 9/18/2011 | 3 | N/A | 19.4 | 18.3 | 17.3 | 17.3 | 17.1 | 20.2 | N/A |
| 9/18/2011 | 4 | N/A | 19.4 | 18.4 | 17.3 | 17.2 | 17.1 | 20.2 | N/A |
| 9/18/2011 | 5 | N/A | 19.4 | 18.5 | 17.2 | 17.2 | 17.1 | 20.2 | 19.4 |
| 9/18/2011 | 6 | N/A | 19.3 | 18.5 | 17.4 | 17.3 | 17.2 | 20.2 | N/A |
| 9/18/2011 | 7 | N/A | 19.3 | 18.4 | 17.5 | 17.5 | 17.3 | 20.2 | 19.6 |
| 9/18/2011 | 8 | N/A | 19.3 | 18.5 | 17.6 | 17.5 | 17.4 | 20.3 | 19.5 |
| 9/18/2011 | 9 | N/A | 19.4 | 18.7 | 17.7 | 17.6 | 17.5 | 20.3 | 19.5 |
| 9/18/2011 | 10 | N/A | 19.5 | 19.0 | 17.9 | 17.7 | 17.7 | 20.3 | 19.5 |
| 9/18/2011 | 11 | N/A | 19.5 | 19.2 | 18.0 | 17.8 | 17.9 | 20.4 | 19.6 |
| 9/18/2011 | 12 | N/A | 19.6 | 19.9 | 18.5 | 18.2 | 18.4 | 20.4 | 19.6 |
| 9/18/2011 | 13 | N/A | 19.8 | 20.5 | 18.9 | 18.6 | 18.8 | 20.5 | 19.7 |
| 9/18/2011 | 14 | N/A | 19.8 | 20.9 | 19.1 | 19.1 | 19.3 | 20.5 | 19.9 |
| 9/18/2011 | 15 | N/A | 19.7 | 21.0 | 19.6 | 19.5 | 19.5 | 20.5 | 20.0 |
| 9/18/2011 | 16 | N/A | 19.6 | 21.0 | 20.0 | 20.1 | 20.1 | 20.5 | 19.9 |
| 9/18/2011 | 17 | N/A | 19.6 | 20.8 | 20.3 | 20.3 | 20.3 | 20.5 | 19.9 |
| 9/18/2011 | 18 | N/A | 19.5 | 20.3 | 20.4 | 20.4 | 20.3 | 20.4 | 19.8 |
| 9/18/2011 | 19 | N/A | 19.5 | 20.0 | 20.3 | 20.3 | 20.2 | 20.4 | 19.7 |
| 9/18/2011 | 20 | N/A | 19.5 | 19.6 | 20.1 | 20.0 | 20.1 | 20.4 | 19.7 |
| 9/18/2011 | 21 | N/A | 19.5 | 19.3 | 19.7 | 19.6 | 19.7 | 20.3 | 19.7 |
| 9/18/2011 | 22 | N/A | 19.5 | 19.2 | 19.3 | 19.2 | 19.3 | 20.3 | 19.6 |
| 9/18/2011 | 23 | N/A | 19.5 | 19.1 | 18.9 | 18.8 | 19.0 | 20.3 | 19.5 |
| 9/18/2011 | 24 | N/A | 19.5 | 19.1 | 18.6 | 18.5 | 18.6 | 20.2 | 19.5 |
| 9/19/2011 | 1 | N/A | 19.5 | 19.0 | 18.4 | 18.3 | 18.3 | 20.2 | 19.6 |
| 9/19/2011 | 2 | N/A | 19.4 | 18.9 | 18.2 | 18.2 | 18.1 | 20.2 | 19.6 |
| 9/19/2011 | 3 | N/A | 19.4 | 18.8 | 18.1 | 18.0 | 18.0 | 20.2 | 19.5 |
| 9/19/2011 | 4 | N/A | 19.4 | 18.9 | 18.0 | 17.9 | 17.9 | 20.1 | 19.4 |
| 9/19/2011 | 5 | N/A | 19.4 | 18.8 | 17.9 | 17.8 | 17.8 | 20.1 | 19.5 |
| 9/19/2011 | 6 | N/A | 19.3 | 18.8 | 17.8 | 17.7 | 17.6 | 20.1 | 19.3 |
| 9/19/2011 | 7 | N/A | 19.3 | 18.7 | 17.7 | 17.7 | 17.5 | 19.9 | 19.4 |
| 9/19/2011 | 8 | N/A | 19.3 | 18.8 | 17.7 | 17.7 | 17.6 | 19.6 | 19.3 |
| 9/19/2011 | 9 | N/A | 19.3 | 18.9 | 17.8 | 17.7 | 17.6 | 19.6 | 19.2 |
| 9/19/2011 | 10 | N/A | 19.3 | 19.4 | 18.0 | 17.8 | 17.8 | 19.6 | 19.2 |
| 9/19/2011 | 11 | N/A | 19.4 | 19.9 | 18.3 | 18.0 | 18.2 | 19.6 | 19.2 |
| 9/19/2011 | 12 | N/A | 19.4 | 20.5 | 18.6 | 18.2 | 18.5 | 19.6 | 19.2 |
| 9/19/2011 | 13 | N/A | 19.4 | 20.9 | 18.9 | 18.6 | 18.8 | 19.6 | 19.3 |
| 9/19/2011 | 14 | N/A | 19.6 | 21.1 | 19.3 | 19.3 | 19.4 | 19.6 | 19.3 |
| 9/19/2011 | 15 | N/A | 19.6 | 21.2 | 19.9 | 19.9 | 20.0 | 19.6 | 19.4 |
| 9/19/2011 | 16 | N/A | 19.4 | 21.1 | 20.2 | 20.3 | 20.4 | 19.6 | 19.4 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/19/2011 | 17 | N/A | 19.4 | 20.7 | 20.5 | 20.5 | 20.5 | 19.6 | 19.4 |
| 9/19/2011 | 18 | N/A | 19.4 | 20.3 | 20.6 | 20.5 | 20.5 | 19.7 | 19.4 |
| 9/19/2011 | 19 | N/A | 19.3 | 19.9 | 20.3 | 20.3 | 20.3 | 19.7 | 19.4 |
| 9/19/2011 | 20 | N/A | 19.3 | 19.3 | 19.9 | 19.9 | 19.9 | 19.7 | 19.4 |
| 9/19/2011 | 21 | N/A | 19.3 | 19.1 | 19.5 | 19.5 | 19.6 | 19.8 | 19.3 |
| 9/19/2011 | 22 | N/A | 19.2 | 18.9 | 19.0 | 19.0 | 19.2 | 19.8 | 19.3 |
| 9/19/2011 | 23 | N/A | 19.2 | 18.7 | 18.6 | 18.6 | 18.7 | 19.8 | 19.2 |
| 9/19/2011 | 24 | N/A | 19.1 | 18.5 | 18.2 | 18.2 | 18.2 | 19.9 | N/A |
| 9/20/2011 | 1 | N/A | 19.1 | 18.5 | 17.9 | 17.8 | 17.9 | 19.9 | N/A |
| 9/20/2011 | 2 | N/A | 19.1 | 18.3 | 17.6 | 17.6 | 17.6 | 20.0 | N/A |
| 9/20/2011 | 3 | N/A | 19.0 | 18.3 | 17.4 | 17.4 | 17.3 | 20.0 | N/A |
| 9/20/2011 | 4 | N/A | 19.0 | 18.2 | 17.2 | 17.2 | 17.2 | 19.9 | N/A |
| 9/20/2011 | 5 | N/A | 18.9 | 18.2 | 17.1 | 17.1 | 17.0 | 19.8 | 19.2 |
| 9/20/2011 | 6 | N/A | 18.9 | 18.1 | 17.0 | 17.0 | 16.9 | 19.7 | 19.1 |
| 9/20/2011 | 7 | N/A | 18.9 | 18.0 | 16.9 | 16.9 | 16.7 | 19.6 | 19.1 |
| 9/20/2011 | 8 | N/A | 18.9 | 18.0 | 16.8 | 16.8 | 16.7 | 19.4 | 19.0 |
| 9/20/2011 | 9 | N/A | 18.9 | 18.4 | 17.0 | 16.8 | 16.8 | 19.3 | 19.0 |
| 9/20/2011 | 10 | N/A | 19.0 | 18.7 | 17.2 | 16.9 | 17.0 | 19.3 | 18.9 |
| 9/20/2011 | 11 | N/A | 19.1 | 19.2 | 17.3 | 17.0 | 17.3 | 19.3 | 19.0 |
| 9/20/2011 | 12 | N/A | 19.2 | 19.8 | 17.6 | 17.3 | 17.6 | 19.4 | 19.0 |
| 9/20/2011 | 13 | N/A | 19.3 | 20.5 | 18.2 | 17.8 | 18.0 | 19.4 | 19.1 |
| 9/20/2011 | 14 | N/A | 19.4 | 20.9 | 18.6 | 18.6 | 18.6 | 19.4 | 19.1 |
| 9/20/2011 | 15 | N/A | 19.5 | 21.1 | 19.3 | 19.3 | 19.3 | 19.5 | 19.2 |
| 9/20/2011 | 16 | N/A | 19.3 | 21.1 | 19.8 | 19.8 | 19.8 | 19.5 | 19.3 |
| 9/20/2011 | 17 | N/A | 19.3 | 20.8 | 20.2 | 20.2 | 20.2 | 19.5 | 19.3 |
| 9/20/2011 | 18 | N/A | 19.3 | 20.3 | 20.4 | 20.3 | 20.2 | 19.5 | 19.3 |
| 9/20/2011 | 19 | N/A | 19.3 | 19.9 | 20.2 | 20.2 | 20.2 | 19.6 | 19.3 |
| 9/20/2011 | 20 | N/A | 19.2 | 19.5 | 19.8 | 19.8 | 19.9 | 19.6 | 19.3 |
| 9/20/2011 | 21 | N/A | 19.2 | 19.3 | 19.4 | 19.4 | 19.5 | 19.6 | 19.2 |
| 9/20/2011 | 22 | N/A | 19.1 | 19.0 | 18.9 | 18.9 | 19.1 | 19.6 | 19.1 |
| 9/20/2011 | 23 | N/A | 19.0 | 18.8 | 18.5 | 18.5 | 18.6 | 19.6 | 19.1 |
| 9/20/2011 | 24 | N/A | 19.0 | 18.7 | 18.1 | 18.1 | 18.2 | 19.7 | N/A |
| 9/21/2011 | 1 | N/A | 18.9 | 18.6 | 17.8 | 17.8 | 17.8 | 19.8 | 19.0 |
| 9/21/2011 | 2 | N/A | 18.9 | 18.6 | 17.6 | 17.5 | 17.5 | 19.8 | 19.1 |
| 9/21/2011 | 3 | N/A | 18.9 | 18.4 | 17.4 | 17.3 | 17.3 | 19.8 | N/A |
| 9/21/2011 | 4 | N/A | 18.8 | 18.5 | 17.2 | 17.2 | 17.2 | 19.7 | 19.0 |
| 9/21/2011 | 5 | N/A | 18.8 | 18.4 | 17.1 | 17.1 | 17.0 | 19.7 | 19.0 |
| 9/21/2011 | 6 | N/A | 18.7 | 18.5 | 17.0 | 16.9 | 16.8 | 19.6 | 19.0 |
| 9/21/2011 | 7 | N/A | 18.7 | 18.4 | 16.8 | 16.8 | 16.7 | 19.4 | 18.9 |
| 9/21/2011 | 8 | N/A | 18.7 | 18.4 | 16.8 | 16.7 | 16.7 | 19.2 | 18.7 |
| 9/21/2011 | 9 | N/A | 18.7 | 18.6 | 16.9 | 16.8 | 16.7 | 19.0 | 18.7 |
| 9/21/2011 | 10 | N/A | 18.8 | 19.0 | 17.1 | 16.9 | 17.0 | 19.0 | 18.7 |
| 9/21/2011 | 11 | N/A | 18.9 | 19.5 | 17.4 | 17.0 | 17.3 | 19.0 | 18.7 |
| 9/21/2011 | 12 | N/A | 19.1 | 20.1 | 17.7 | 17.3 | 17.6 | 19.1 | 18.8 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/21/2011 | 13 | N/A | 19.0 | 20.2 | 17.9 | 17.7 | 17.7 | 19.1 | 18.9 |
| 9/21/2011 | 14 | N/A | 19.1 | 20.5 | 18.7 | 18.5 | 18.4 | 19.1 | 18.9 |
| 9/21/2011 | 15 | N/A | 19.0 | 20.3 | 19.1 | 19.0 | 18.9 | 19.1 | 18.9 |
| 9/21/2011 | 16 | N/A | 19.1 | 20.2 | 19.4 | 19.3 | 19.2 | 19.2 | 19.0 |
| 9/21/2011 | 17 | N/A | 19.1 | 20.1 | 19.5 | 19.4 | 19.4 | 19.2 | 19.0 |
| 9/21/2011 | 18 | N/A | 19.1 | 19.9 | 19.4 | 19.3 | 19.4 | 19.2 | 19.0 |
| 9/21/2011 | 19 | N/A | 19.0 | 19.8 | 19.2 | 19.2 | 19.2 | 19.3 | 19.0 |
| 9/21/2011 | 20 | N/A | 18.9 | 19.6 | 18.9 | 18.9 | 19.0 | 19.3 | 19.0 |
| 9/21/2011 | 21 | N/A | 18.9 | 19.4 | 18.7 | 18.7 | 18.7 | 19.3 | 19.0 |
| 9/21/2011 | 22 | N/A | 18.9 | 19.1 | 18.5 | 18.4 | 18.5 | 19.4 | 18.9 |
| 9/21/2011 | 23 | N/A | 18.8 | 19.0 | 18.2 | 18.2 | 18.2 | 19.4 | 19.0 |
| 9/21/2011 | 24 | N/A | 18.8 | 18.9 | 17.9 | 17.9 | 17.9 | 19.6 | 19.0 |
| 9/22/2011 | 1 | N/A | 18.8 | 18.9 | 17.7 | 17.7 | 17.7 | 19.7 | 18.9 |
| 9/22/2011 | 2 | N/A | 18.7 | 18.8 | 17.5 | 17.5 | 17.5 | 19.7 | N/A |
| 9/22/2011 | 3 | N/A | 18.7 | 18.8 | 17.3 | 17.3 | 17.3 | 19.6 | 18.8 |
| 9/22/2011 | 4 | N/A | 18.7 | 18.7 | 17.2 | 17.2 | 17.1 | 19.5 | 18.9 |
| 9/22/2011 | 5 | N/A | 18.7 | 18.7 | 17.2 | 17.1 | 17.0 | 19.5 | 18.8 |
| 9/22/2011 | 6 | N/A | 18.7 | 18.7 | 17.1 | 17.1 | 17.0 | 19.4 | 18.8 |
| 9/22/2011 | 7 | N/A | 18.6 | 18.7 | 17.0 | 17.0 | 16.9 | 19.2 | 18.8 |
| 9/22/2011 | 8 | N/A | 18.7 | 18.8 | 17.1 | 17.0 | 17.0 | 19.0 | 18.7 |
| 9/22/2011 | 9 | N/A | 18.7 | 18.9 | 17.1 | 17.0 | 17.0 | 18.9 | 18.7 |
| 9/22/2011 | 10 | N/A | 18.7 | 19.1 | 17.2 | 17.1 | 17.1 | 18.9 | 18.7 |
| 9/22/2011 | 11 | N/A | 18.8 | 19.3 | 17.4 | 17.3 | 17.2 | 18.9 | 18.7 |
| 9/22/2011 | 12 | N/A | 18.8 | 19.6 | 17.6 | 17.5 | 17.5 | 18.9 | 18.7 |
| 9/22/2011 | 13 | N/A | 18.9 | 19.9 | 18.0 | 17.8 | 17.9 | 18.9 | 18.7 |
| 9/22/2011 | 14 | N/A | 18.9 | 20.1 | 18.2 | 18.1 | 18.1 | 19.0 | 18.7 |
| 9/22/2011 | 15 | N/A | 19.0 | 20.3 | 18.5 | 18.5 | 18.5 | 19.0 | 18.8 |
| 9/22/2011 | 16 | N/A | 18.9 | 20.4 | 18.9 | 18.8 | 18.7 | 19.0 | 18.8 |
| 9/22/2011 | 17 | N/A | 18.9 | 20.2 | 19.2 | 19.1 | 19.0 | 19.0 | 18.8 |
| 9/22/2011 | 18 | N/A | 18.9 | 20.2 | 19.3 | 19.2 | 19.2 | 19.0 | 18.8 |
| 9/22/2011 | 19 | N/A | 18.8 | 20.0 | 19.3 | 19.2 | 19.2 | 19.0 | 18.8 |
| 9/22/2011 | 20 | N/A | 18.8 | 19.8 | 19.2 | 19.1 | 19.2 | 19.0 | 18.9 |
| 9/22/2011 | 21 | N/A | 18.8 | 19.6 | 19.0 | 18.9 | 19.0 | 19.0 | 18.9 |
| 9/22/2011 | 22 | N/A | 18.8 | 19.5 | 18.8 | 18.7 | 18.8 | 19.0 | 18.9 |
| 9/22/2011 | 23 | N/A | 18.8 | 19.4 | 18.5 | 18.5 | 18.6 | 19.0 | 18.8 |
| 9/22/2011 | 24 | N/A | 18.8 | 19.3 | 18.3 | 18.3 | 18.3 | 19.0 | 18.8 |
| 9/23/2011 | 1 | N/A | 18.7 | 19.2 | 18.1 | 18.1 | 18.1 | 19.0 | 18.8 |
| 9/23/2011 | 2 | N/A | 18.7 | 19.2 | 18.0 | 17.9 | 18.0 | 19.0 | 18.7 |
| 9/23/2011 | 3 | N/A | 18.7 | 19.1 | 17.9 | 17.8 | 17.8 | 19.0 | 18.7 |
| 9/23/2011 | 4 | N/A | 18.7 | 19.1 | 17.8 | 17.7 | 17.7 | 18.9 | 18.7 |
| 9/23/2011 | 5 | N/A | 18.7 | 19.1 | 17.7 | 17.7 | 17.7 | 18.9 | 18.7 |
| 9/23/2011 | 6 | N/A | 18.7 | 19.0 | 17.7 | 17.6 | 17.6 | 18.9 | 18.7 |
| 9/23/2011 | 7 | N/A | 18.6 | 19.0 | 17.6 | 17.6 | 17.5 | 18.9 | 18.7 |
| 9/23/2011 | 8 | N/A | 18.6 | 18.9 | 17.6 | 17.6 | 17.5 | 18.9 | 18.7 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/23/2011 | 9 | N/A | 18.7 | 19.2 | 17.9 | 17.6 | 17.7 | 18.9 | 18.7 |
| 9/23/2011 | 10 | N/A | 18.7 | 19.5 | 18.0 | 17.7 | 17.9 | 18.9 | 18.7 |
| 9/23/2011 | 11 | N/A | 18.9 | 20.1 | 18.2 | 17.9 | 18.2 | 19.0 | 18.7 |
| 9/23/2011 | 12 | N/A | 19.0 | 20.7 | 18.6 | 18.2 | 18.6 | 19.0 | 18.7 |
| 9/23/2011 | 13 | N/A | 19.2 | 21.1 | 19.1 | 18.8 | 19.0 | 19.1 | 18.8 |
| 9/23/2011 | 14 | N/A | 19.3 | 21.3 | 19.6 | 19.5 | 19.7 | 19.1 | 18.9 |
| 9/23/2011 | 15 | N/A | 19.2 | 21.5 | 20.2 | 20.2 | 20.4 | 19.2 | 19.0 |
| 9/23/2011 | 16 | N/A | 19.0 | 21.4 | 20.7 | 20.7 | 20.9 | 19.2 | 19.1 |
| 9/23/2011 | 17 | N/A | 19.0 | 21.2 | 21.1 | 21.1 | 21.2 | 19.3 | 19.2 |
| 9/23/2011 | 18 | N/A | 19.0 | 20.7 | 21.2 | 21.2 | 21.2 | 19.3 | 19.2 |
| 9/23/2011 | 19 | N/A | 19.0 | 20.4 | 21.0 | 21.0 | 21.1 | 19.4 | 19.2 |
| 9/23/2011 | 20 | N/A | 19.0 | 20.1 | 20.7 | 20.7 | 20.8 | 19.4 | 19.2 |
| 9/23/2011 | 21 | N/A | 19.0 | 19.7 | 20.2 | 20.2 | 20.4 | 19.5 | 19.2 |
| 9/23/2011 | 22 | N/A | 19.0 | 19.5 | 19.7 | 19.7 | 19.9 | 19.5 | 19.2 |
| 9/23/2011 | 23 | N/A | 19.1 | 19.4 | 19.2 | 19.2 | 19.4 | 19.5 | 19.2 |
| 9/23/2011 | 24 | N/A | 19.1 | 19.3 | 18.8 | 18.8 | 19.0 | 19.5 | 19.2 |
| 9/24/2011 | 1 | N/A | 19.1 | 19.1 | 18.5 | 18.5 | 18.6 | 19.5 | 19.3 |
| 9/24/2011 | 2 | N/A | 19.0 | 18.9 | 18.3 | 18.2 | 18.3 | 19.5 | 19.3 |
| 9/24/2011 | 3 | N/A | 19.0 | 18.9 | 18.1 | 18.0 | 18.1 | 19.5 | 19.2 |
| 9/24/2011 | 4 | N/A | 19.0 | 18.8 | 17.9 | 17.9 | 17.9 | 19.5 | 19.2 |
| 9/24/2011 | 5 | N/A | 18.9 | 18.7 | 17.7 | 17.7 | 17.7 | 19.4 | 19.2 |
| 9/24/2011 | 6 | N/A | 18.9 | 18.5 | 17.6 | 17.6 | 17.5 | 19.4 | 19.1 |
| 9/24/2011 | 7 | N/A | 18.9 | 18.4 | 17.5 | 17.5 | 17.4 | 19.4 | 19.1 |
| 9/24/2011 | 8 | N/A | 18.9 | 18.4 | 17.4 | 17.4 | 17.3 | 19.4 | 19.0 |
| 9/24/2011 | 9 | N/A | 18.9 | 18.7 | 17.5 | 17.4 | 17.4 | 19.3 | 19.0 |
| 9/24/2011 | 10 | N/A | 19.1 | 19.1 | 17.8 | 17.5 | 17.6 | 19.3 | 18.9 |
| 9/24/2011 | 11 | N/A | 19.0 | 19.7 | 17.9 | 17.6 | 17.8 | 19.3 | 19.0 |
| 9/24/2011 | 12 | N/A | 19.1 | 19.8 | 18.2 | 17.9 | 18.2 | 19.2 | 19.0 |
| 9/24/2011 | 13 | N/A | 19.2 | 20.0 | 19.9 | 19.8 | 19.5 | 19.2 | 19.0 |
| 9/24/2011 | 14 | N/A | 19.2 | 20.1 | 20.1 | 20.1 | 20.2 | 19.3 | 19.1 |
| 9/24/2011 | 15 | N/A | 19.3 | 20.1 | 20.2 | 20.2 | 20.3 | 19.3 | 19.2 |
| 9/24/2011 | 16 | N/A | 19.4 | 19.9 | 20.2 | 20.1 | 20.2 | 19.4 | 19.2 |
| 9/24/2011 | 17 | N/A | 19.4 | 19.7 | 19.9 | 19.9 | 20.0 | 19.4 | 19.3 |
| 9/24/2011 | 18 | N/A | 19.4 | 19.6 | 19.7 | 19.7 | 19.8 | 19.5 | 19.4 |
| 9/24/2011 | 19 | N/A | 19.4 | 19.4 | 19.6 | 19.5 | 19.6 | 19.5 | 19.4 |
| 9/24/2011 | 20 | N/A | 19.4 | 19.3 | 19.4 | 19.3 | 19.4 | 19.6 | 19.4 |
| 9/24/2011 | 21 | N/A | 19.4 | 19.2 | 19.3 | 19.2 | 19.2 | 19.6 | 19.4 |
| 9/24/2011 | 22 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.2 | 19.6 | 19.4 |
| 9/24/2011 | 23 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.1 | 19.6 | 19.3 |
| 9/24/2011 | 24 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.1 | 19.6 | 19.3 |
| 9/25/2011 | 1 | N/A | 19.4 | 19.2 | 19.2 | 19.1 | 19.1 | 19.6 | 19.3 |
| 9/25/2011 | 2 | N/A | 19.4 | 19.1 | 19.2 | 19.1 | 19.1 | 19.5 | 19.3 |
| 9/25/2011 | 3 | N/A | 19.3 | 19.2 | 19.1 | 19.1 | 19.1 | 19.5 | 19.3 |
| 9/25/2011 | 4 | N/A | 19.2 | 19.2 | 19.1 | 19.1 | 19.1 | 19.5 | 19.2 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/25/2011 | 5 | N/A | 19.3 | 19.1 | 19.1 | 19.0 | 19.1 | 19.5 | 19.2 |
| 9/25/2011 | 6 | N/A | 19.2 | 19.1 | 19.0 | 19.0 | 19.0 | 19.4 | 19.2 |
| 9/25/2011 | 7 | N/A | 19.2 | 19.0 | 19.0 | 18.9 | 18.9 | 19.4 | 19.2 |
| 9/25/2011 | 8 | N/A | 19.2 | 19.0 | 19.0 | 18.9 | 18.9 | 19.4 | 19.2 |
| 9/25/2011 | 9 | N/A | 19.1 | 19.0 | 18.9 | 18.8 | 18.8 | 19.4 | 19.1 |
| 9/25/2011 | 10 | N/A | 19.1 | 19.0 | 18.8 | 18.8 | 18.8 | 19.3 | 19.1 |
| 9/25/2011 | 11 | N/A | 19.1 | 19.0 | 18.9 | 18.8 | 18.8 | 19.3 | 19.0 |
| 9/25/2011 | 12 | N/A | 19.1 | 19.0 | 18.9 | 18.9 | 18.9 | 19.3 | 19.0 |
| 9/25/2011 | 13 | N/A | 19.1 | 18.9 | 18.9 | 18.8 | 18.9 | 19.3 | 19.0 |
| 9/25/2011 | 14 | N/A | 19.2 | 19.3 | 19.0 | 18.9 | 19.0 | 19.3 | 19.1 |
| 9/25/2011 | 15 | N/A | 19.2 | 19.5 | 19.3 | 19.2 | 19.3 | 19.3 | 19.1 |
| 9/25/2011 | 16 | N/A | 19.2 | 19.3 | 19.5 | 19.4 | 19.4 | 19.3 | 19.1 |
| 9/25/2011 | 17 | N/A | 19.2 | 19.2 | 19.3 | 19.2 | 19.3 | 19.3 | 19.2 |
| 9/25/2011 | 18 | N/A | 19.2 | 19.0 | 19.0 | 19.0 | 19.0 | 19.3 | 19.1 |
| 9/25/2011 | 19 | N/A | 19.1 | 18.7 | 18.7 | 18.6 | 18.6 | 19.3 | 19.1 |
| 9/25/2011 | 20 | N/A | 19.1 | 18.5 | 18.3 | 18.3 | 18.3 | 19.3 | 19.1 |
| 9/25/2011 | 21 | N/A | 19.0 | 18.3 | 18.0 | 17.9 | 17.9 | 19.3 | 19.0 |
| 9/25/2011 | 22 | N/A | 19.0 | 18.2 | 17.9 | 17.8 | 17.7 | 19.2 | 18.9 |
| 9/25/2011 | 23 | N/A | 18.9 | 18.2 | 17.8 | 17.7 | 17.7 | 19.2 | 18.9 |
| 9/25/2011 | 24 | N/A | 18.8 | 18.3 | 17.8 | 17.7 | 17.6 | 19.1 | 18.8 |
| 9/26/2011 | 1 | N/A | 18.8 | 18.3 | 17.8 | 17.8 | 17.7 | 19.1 | 18.8 |
| 9/26/2011 | 2 | N/A | 18.7 | 18.2 | 17.9 | 17.8 | 17.8 | 19.0 | 18.8 |
| 9/26/2011 | 3 | N/A | 18.6 | 18.2 | 17.8 | 17.7 | 17.7 | 18.9 | 18.7 |
| 9/26/2011 | 4 | N/A | 18.6 | 18.2 | 17.7 | 17.7 | 17.6 | 18.9 | 18.6 |
| 9/26/2011 | 5 | N/A | 18.5 | 18.0 | 17.7 | 17.6 | 17.6 | 18.8 | 18.6 |
| 9/26/2011 | 6 | N/A | 18.4 | 18.0 | 17.6 | 17.5 | 17.5 | 18.8 | 18.5 |
| 9/26/2011 | 7 | N/A | 18.4 | 18.1 | 17.6 | 17.5 | 17.5 | 18.7 | 18.4 |
| 9/26/2011 | 8 | N/A | 18.3 | 18.1 | 17.7 | 17.6 | 17.6 | 18.7 | 18.4 |
| 9/26/2011 | 9 | N/A | 18.3 | 18.2 | 17.7 | 17.7 | 17.6 | 18.7 | 18.4 |
| 9/26/2011 | 10 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.6 | 18.3 |
| 9/26/2011 | 11 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.6 | 18.3 |
| 9/26/2011 | 12 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 13 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 14 | N/A | 18.2 | 18.3 | 17.9 | 17.8 | 17.8 | 18.5 | 18.3 |
| 9/26/2011 | 15 | N/A | 18.2 | 18.2 | 17.8 | 17.8 | 17.8 | 18.5 | 18.3 |
| 9/26/2011 | 16 | N/A | 18.3 | 18.2 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 17 | N/A | 18.2 | 18.2 | 17.7 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 18 | N/A | 18.2 | 18.2 | 17.7 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 19 | N/A | 18.2 | 18.0 | 17.8 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 20 | N/A | 18.2 | 18.0 | 17.7 | 17.7 | 17.7 | 18.5 | 18.3 |
| 9/26/2011 | 21 | N/A | 18.2 | 18.0 | 17.7 | 17.6 | 17.6 | 18.5 | 18.3 |
| 9/26/2011 | 22 | N/A | 18.2 | 18.0 | 17.6 | 17.5 | 17.5 | 18.5 | 18.2 |
| 9/26/2011 | 23 | N/A | 18.2 | 17.9 | 17.6 | 17.5 | 17.5 | 18.4 | 18.2 |
| 9/26/2011 | 24 | N/A | 18.1 | 17.8 | 17.5 | 17.4 | 17.4 | 18.4 | 18.2 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/27/2011 | 1 | N/A | 18.1 | 17.7 | 17.5 | 17.4 | 17.4 | 18.4 | 18.2 |
| 9/27/2011 | 2 | N/A | 18.1 | 17.7 | 17.4 | 17.3 | 17.3 | 18.4 | 18.2 |
| 9/27/2011 | 3 | N/A | 18.1 | 17.7 | 17.3 | 17.3 | 17.2 | 18.4 | 18.2 |
| 9/27/2011 | 4 | N/A | 18.1 | 17.7 | 17.3 | 17.2 | 17.2 | 18.4 | 18.1 |
| 9/27/2011 | 5 | N/A | 18.1 | 17.7 | 17.3 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 6 | N/A | 18.1 | 17.6 | 17.3 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 7 | N/A | 18.1 | 17.6 | 17.2 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 8 | N/A | 18.1 | 17.7 | 17.2 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 9 | N/A | 18.1 | 17.9 | 17.3 | 17.2 | 17.2 | 18.3 | 18.1 |
| 9/27/2011 | 10 | N/A | 18.1 | 18.4 | 17.6 | 17.4 | 17.5 | 18.3 | 18.1 |
| 9/27/2011 | 11 | N/A | 18.1 | 18.8 | 17.7 | 17.5 | 17.7 | 18.3 | 18.1 |
| 9/27/2011 | 12 | N/A | 18.3 | 19.2 | 18.1 | 17.8 | 18.0 | 18.3 | 18.1 |
| 9/27/2011 | 13 | N/A | 18.3 | 19.6 | 18.4 | 18.2 | 18.3 | 18.3 | 18.2 |
| 9/27/2011 | 14 | N/A | 18.4 | 19.5 | 18.4 | 18.4 | 18.5 | 18.4 | 18.2 |
| 9/27/2011 | 15 | N/A | 18.3 | 19.7 | 18.7 | 18.7 | 18.6 | 18.4 | 18.2 |
| 9/27/2011 | 16 | N/A | 18.2 | 19.5 | 18.9 | 18.9 | 18.9 | 18.4 | 18.3 |
| 9/27/2011 | 17 | N/A | 18.2 | 19.1 | 18.9 | 18.9 | 18.8 | 18.4 | 18.3 |
| 9/27/2011 | 18 | N/A | 18.2 | 18.5 | 18.8 | 18.8 | 18.6 | 18.5 | 18.3 |
| 9/27/2011 | 19 | N/A | 18.2 | 18.2 | 18.5 | 18.5 | 18.3 | 18.5 | 18.3 |
| 9/27/2011 | 20 | N/A | 18.2 | 17.8 | 18.1 | 18.1 | 18.0 | 18.5 | 18.3 |
| 9/27/2011 | 21 | N/A | 18.1 | 17.5 | 17.7 | 17.6 | 17.7 | 18.5 | 18.2 |
| 9/27/2011 | 22 | N/A | 18.1 | 17.3 | 17.2 | 17.2 | 17.2 | 18.4 | 18.2 |
| 9/27/2011 | 23 | N/A | 18.0 | 17.2 | 16.9 | 16.9 | 16.9 | 18.4 | 18.1 |
| 9/27/2011 | 24 | N/A | 18.0 | 17.2 | 16.6 | 16.6 | 16.5 | 18.3 | 18.0 |
| 9/28/2011 | 1 | N/A | 17.9 | 17.1 | 16.4 | 16.4 | 16.3 | 18.2 | 18.0 |
| 9/28/2011 | 2 | N/A | 17.8 | 17.1 | 16.2 | 16.2 | 16.1 | 18.2 | 17.9 |
| 9/28/2011 | 3 | N/A | 17.8 | 17.1 | 16.2 | 16.1 | 16.0 | 18.1 | 17.9 |
| 9/28/2011 | 4 | N/A | 17.7 | 16.9 | 16.0 | 16.0 | 15.9 | 18.1 | 17.8 |
| 9/28/2011 | 5 | N/A | 17.7 | 16.9 | 16.0 | 15.9 | 15.8 | 18.0 | 17.8 |
| 9/28/2011 | 6 | N/A | 17.6 | 16.9 | 15.9 | 15.8 | 15.7 | 18.0 | 17.7 |
| 9/28/2011 | 7 | N/A | 17.6 | 16.8 | 15.8 | 15.8 | 15.6 | 18.0 | 17.7 |
| 9/28/2011 | 8 | N/A | 17.5 | 16.8 | 15.7 | 15.7 | 15.6 | 18.0 | 17.6 |
| 9/28/2011 | 9 | N/A | 17.5 | 17.0 | 15.9 | 15.7 | 15.7 | 18.0 | 17.6 |
| 9/28/2011 | 10 | N/A | 17.6 | 17.4 | 16.1 | 15.8 | 15.9 | 17.9 | 17.6 |
| 9/28/2011 | 11 | N/A | 17.7 | 17.9 | 16.2 | 15.9 | 16.2 | 17.9 | 17.6 |
| 9/28/2011 | 12 | N/A | 17.8 | 18.4 | 16.5 | 16.1 | 16.3 | 17.9 | 17.7 |
| 9/28/2011 | 13 | N/A | 17.9 | 18.9 | 16.7 | 16.5 | 16.6 | 17.9 | 17.7 |
| 9/28/2011 | 14 | N/A | 17.9 | 19.3 | 17.1 | 17.1 | 17.2 | 18.0 | 17.8 |
| 9/28/2011 | 15 | N/A | 17.9 | 19.4 | 17.6 | 17.7 | 17.7 | 18.0 | 17.9 |
| 9/28/2011 | 16 | N/A | 17.8 | 19.3 | 18.0 | 18.1 | 18.1 | 18.0 | 17.9 |
| 9/28/2011 | 17 | N/A | 17.9 | 18.9 | 18.4 | 18.4 | 18.3 | 18.1 | 18.0 |
| 9/28/2011 | 18 | N/A | 17.8 | 18.4 | 18.5 | 18.5 | 18.4 | 18.1 | 18.0 |
| 9/28/2011 | 19 | N/A | 17.8 | 18.0 | 18.3 | 18.3 | 18.3 | 18.1 | 18.0 |
| 9/28/2011 | 20 | N/A | 17.8 | 17.6 | 17.9 | 17.9 | 18.0 | 18.2 | 17.9 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/28/2011 | 21 | N/A | 17.7 | 17.4 | 17.5 | 17.5 | 17.6 | 18.2 | 17.9 |
| 9/28/2011 | 22 | N/A | 17.7 | 17.1 | 17.1 | 17.1 | 17.2 | 18.1 | 17.9 |
| 9/28/2011 | 23 | N/A | 17.7 | 17.0 | 16.7 | 16.7 | 16.7 | 18.1 | 17.9 |
| 9/28/2011 | 24 | N/A | 17.7 | 16.9 | 16.3 | 16.3 | 16.4 | 18.1 | 17.8 |
| 9/29/2011 | 1 | N/A | 17.6 | 16.8 | 16.1 | 16.1 | 16.1 | 18.0 | 17.8 |
| 9/29/2011 | 2 | N/A | 17.6 | 16.7 | 15.9 | 15.9 | 15.8 | 18.0 | 17.8 |
| 9/29/2011 | 3 | N/A | 17.6 | 16.7 | 15.8 | 15.7 | 15.7 | 18.0 | 17.7 |
| 9/29/2011 | 4 | N/A | 17.5 | 16.7 | 15.6 | 15.6 | 15.5 | 18.0 | 17.7 |
| 9/29/2011 | 5 | N/A | 17.5 | 16.6 | 15.6 | 15.5 | 15.4 | 17.9 | 17.7 |
| 9/29/2011 | 6 | N/A | 17.4 | 16.5 | 15.4 | 15.4 | 15.3 | 17.9 | 17.6 |
| 9/29/2011 | 7 | N/A | 17.3 | 16.4 | 15.4 | 15.3 | 15.2 | 17.9 | 17.6 |
| 9/29/2011 | 8 | N/A | 17.3 | 16.4 | 15.3 | 15.2 | 15.2 | 17.9 | 17.5 |
| 9/29/2011 | 9 | N/A | 17.3 | 16.7 | 15.5 | 15.3 | 15.2 | 17.9 | 17.5 |
| 9/29/2011 | 10 | N/A | 17.4 | 17.1 | 15.7 | 15.3 | 15.4 | 17.8 | 17.5 |
| 9/29/2011 | 11 | N/A | 17.6 | 17.7 | 15.7 | 15.4 | 15.6 | 17.8 | 17.5 |
| 9/29/2011 | 12 | N/A | 17.7 | 18.3 | 16.1 | 15.7 | 15.9 | 17.8 | 17.6 |
| 9/29/2011 | 13 | N/A | 17.8 | 18.9 | 16.5 | 16.2 | 16.3 | 17.8 | 17.6 |
| 9/29/2011 | 14 | N/A | 17.9 | 19.3 | 16.9 | 16.9 | 16.9 | 17.9 | 17.7 |
| 9/29/2011 | 15 | N/A | 17.9 | 19.4 | 17.5 | 17.6 | 17.6 | 17.9 | 17.8 |
| 9/29/2011 | 16 | N/A | 17.8 | 19.4 | 18.1 | 18.2 | 18.1 | 18.0 | 17.8 |
| 9/29/2011 | 17 | N/A | 17.8 | 19.0 | 18.6 | 18.5 | 18.4 | 18.0 | 17.9 |
| 9/29/2011 | 18 | N/A | 17.8 | 18.6 | 18.6 | 18.6 | 18.5 | 18.1 | 17.9 |
| 9/29/2011 | 19 | N/A | 17.8 | 18.2 | 18.4 | 18.4 | 18.4 | 18.1 | 17.9 |
| 9/29/2011 | 20 | N/A | 17.8 | 17.9 | 18.1 | 18.1 | 18.2 | 18.1 | 17.9 |
| 9/29/2011 | 21 | N/A | 17.8 | 17.6 | 17.7 | 17.7 | 17.8 | 18.1 | 17.9 |
| 9/29/2011 | 22 | N/A | 17.7 | 17.4 | 17.3 | 17.3 | 17.4 | 18.1 | 17.9 |
| 9/29/2011 | 23 | N/A | 17.7 | 17.2 | 16.9 | 16.9 | 17.0 | 18.1 | 17.9 |
| 9/29/2011 | 24 | N/A | 17.7 | 17.2 | 16.6 | 16.6 | 16.6 | 18.1 | 17.9 |
| 9/30/2011 | 1 | N/A | 17.7 | 17.1 | 16.4 | 16.3 | 16.3 | 18.0 | 17.8 |
| 9/30/2011 | 2 | N/A | 17.6 | 17.0 | 16.2 | 16.2 | 16.1 | 18.0 | 17.8 |
| 9/30/2011 | 3 | N/A | 17.6 | 16.9 | 16.0 | 16.0 | 15.9 | 18.0 | 17.7 |
| 9/30/2011 | 4 | N/A | 17.6 | 16.9 | 15.9 | 15.8 | 15.8 | 18.0 | 17.7 |
| 9/30/2011 | 5 | N/A | 17.5 | 16.8 | 15.7 | 15.7 | 15.7 | 18.0 | 17.7 |
| 9/30/2011 | 6 | N/A | 17.5 | 16.7 | 15.7 | 15.6 | 15.5 | 17.9 | 17.7 |
| 9/30/2011 | 7 | N/A | 17.5 | 16.6 | 15.6 | 15.5 | 15.4 | 17.9 | 17.6 |
| 9/30/2011 | 8 | N/A | 17.4 | 16.7 | 15.5 | 15.5 | 15.4 | 17.9 | 17.6 |
| 9/30/2011 | 9 | N/A | 17.5 | 16.9 | 15.7 | 15.5 | 15.5 | 17.9 | 17.6 |
| 9/30/2011 | 10 | N/A | 17.5 | 17.3 | 15.8 | 15.6 | 15.7 | 17.9 | 17.6 |
| 9/30/2011 | 11 | N/A | 17.7 | 17.9 | 16.1 | 15.7 | 15.9 | 17.9 | 17.6 |
| 9/30/2011 | 12 | N/A | 17.8 | 18.4 | 16.3 | 16.0 | 16.2 | 17.8 | 17.6 |
| 9/30/2011 | 13 | N/A | 17.9 | 19.0 | 16.9 | 16.5 | 16.7 | 17.9 | 17.7 |
| 9/30/2011 | 14 | N/A | 17.9 | 19.3 | 17.2 | 17.1 | 17.1 | 17.9 | 17.7 |
| 9/30/2011 | 15 | N/A | 18.0 | 19.5 | 17.8 | 17.8 | 17.8 | 18.0 | 17.8 |
| 9/30/2011 | 16 | N/A | 18.0 | 19.2 | 18.3 | 18.3 | 18.2 | 18.0 | 17.9 |

# 2011 Chelan River Hourly Temperature Data
# 3rd Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 9/30/2011 | 17 | N/A | 18.0 | 18.9 | 18.6 | 18.6 | 18.5 | 18.0 | 18.0 |
| 9/30/2011 | 18 | N/A | 17.9 | 18.6 | 18.7 | 18.6 | 18.6 | 18.1 | 18.0 |
| 9/30/2011 | 19 | N/A | 17.9 | 18.3 | 18.4 | 18.4 | 18.4 | 18.1 | 18.0 |
| 9/30/2011 | 20 | N/A | 17.9 | 18.0 | 18.1 | 18.0 | 18.2 | 18.2 | 17.9 |
| 9/30/2011 | 21 | N/A | 17.8 | 17.9 | 17.7 | 17.7 | 17.8 | 18.2 | 17.9 |
| 9/30/2011 | 22 | N/A | 17.8 | 17.7 | 17.4 | 17.3 | 17.4 | 18.1 | 17.9 |
| 9/30/2011 | 23 | N/A | 17.8 | 17.7 | 17.1 | 17.1 | 17.1 | 18.1 | 17.8 |
| 9/30/2011 | 24 | N/A | 17.8 | 17.6 | 16.9 | 16.9 | 16.9 | 18.1 | 17.8 |

2011 Chelan River Daily Temperature Data
4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|
| 10/1/2011 | N/A | 17.7 | 18.0 | 17.1 | 17.1 | 17.1 | 18.0 | 17.7 |
| 10/2/2011 | N/A | 17.5 | 18.0 | 16.8 | 16.7 | 16.7 | 17.8 | 17.5 |
| 10/3/2011 | N/A | 17.5 | 18.0 | 16.8 | 16.7 | 16.7 | 17.7 | 17.5 |
| 10/4/2011 | N/A | 17.3 | 17.7 | 16.6 | 16.5 | 16.5 | 17.6 | 17.4 |
| 10/5/2011 | N/A | 16.9 | 17.1 | 15.8 | 15.7 | 15.7 | 17.2 | 17.0 |
| 10/6/2011 | N/A | 16.7 | 17.2 | 16.3 | 16.2 | 16.2 | 17.0 | 16.8 |
| 10/7/2011 | N/A | 16.7 | 17.2 | 16.1 | 16.1 | 16.0 | 17.0 | 16.7 |
| 10/8/2011 | N/A | 16.5 | 17.2 | 15.7 | 15.6 | 15.6 | 16.8 | 16.6 |
| 10/9/2011 | N/A | 16.5 | 17.3 | 15.8 | 15.7 | 15.7 | 16.8 | 16.5 |
| 10/10/2011 | N/A | 16.4 | 16.9 | 15.7 | 15.7 | 15.6 | 16.7 | 16.4 |
| 10/11/2011 | N/A | 16.1 | 16.6 | 15.4 | 15.4 | 15.3 | 16.4 | 16.2 |
| 10/12/2011 | N/A | 15.4 | 15.8 | 14.3 | 14.2 | 14.1 | 15.8 | 15.5 |
| 10/13/2011 | N/A | 15.1 | 15.9 | 14.4 | 14.3 | 14.3 | 15.5 | 15.2 |
| 10/14/2011 | N/A | 15.1 | 15.6 | 14.4 | 14.5 | 14.5 | 15.4 | 15.1 |
| 10/15/2011 | N/A | 15.0 | 15.5 | 14.5 | 14.9 | 14.8 | 15.4 | 15.1 |
| 10/16/2011 | N/A | 15.1 | 15.5 | 14.4 | 14.9 | 14.8 | 15.4 | 15.1 |
| 10/17/2011 | N/A | 15.0 | 15.4 | 14.4 | 14.8 | 14.7 | 15.3 | 15.0 |
| 10/18/2011 | N/A | 14.9 | 15.3 | 14.3 | 14.8 | 14.7 | 15.3 | 15.0 |
| 10/19/2011 | N/A | 15.0 | 15.5 | 14.5 | 14.8 | 14.8 | 15.3 | 15.0 |
| 10/20/2011 | N/A | 15.1 | 15.9 | 14.9 | 15.0 | 14.9 | 15.4 | 15.1 |
| 10/21/2011 | N/A | 15.0 | 15.8 | 14.3 | 14.8 | 14.8 | 15.3 | 15.0 |
| 10/22/2011 | N/A | 14.8 | 15.8 | 14.4 | 14.7 | 14.7 | 15.2 | 14.9 |
| 10/23/2011 | N/A | 14.7 | 15.4 | 13.9 | 14.5 | 14.5 | 15.1 | 14.8 |
| 10/24/2011 | N/A | 14.3 | 14.8 | 13.3 | 14.2 | 14.1 | 14.8 | 14.5 |
| 10/25/2011 | N/A | 14.0 | 14.3 | 12.8 | 13.9 | 13.8 | 14.5 | 14.2 |
| 10/26/2011 | N/A | 13.6 | 13.8 | 12.0 | 13.4 | 13.2 | 14.1 | 13.7 |
| 10/27/2011 | N/A | 13.1 | 13.7 | 11.9 | 13.0 | 12.9 | 13.7 | 13.3 |
| 10/28/2011 | N/A | 13.1 | 13.6 | 11.9 | 12.9 | 12.8 | 13.5 | 13.2 |
| 10/29/2011 | N/A | 13.0 | 13.5 | 12.0 | 12.8 | 12.8 | 13.5 | 13.1 |
| 10/30/2011 | N/A | 13.1 | 13.4 | 12.2 | 12.9 | 12.9 | 13.5 | 13.2 |
| 10/31/2011 | N/A | 13.0 | 13.0 | 11.9 | 12.8 | 12.7 | 13.4 | 13.1 |
| 11/1/2011 | N/A | 12.7 | 12.8 | 11.5 | 12.6 | 12.4 | 13.2 | 12.8 |
| 11/2/2011 | N/A | 12.5 | 12.7 | 11.2 | 12.3 | 12.2 | 13.0 | 12.6 |
| 11/3/2011 | N/A | 12.4 | 12.6 | 11.4 | 12.2 | 12.2 | 12.9 | 12.5 |
| 11/4/2011 | N/A | 12.0 | 11.9 | 10.8 | 11.9 | 11.8 | 12.6 | 12.2 |
| 11/5/2011 | N/A | 11.8 | 11.5 | 10.4 | 11.6 | 11.5 | 12.4 | 12.0 |
| 11/6/2011 | N/A | 11.4 | 11.3 | 10.0 | 11.3 | 11.1 | 12.0 | 11.6 |
| 11/7/2011 | N/A | 11.1 | 10.7 | 9.5 | 11.0 | 10.8 | 11.7 | 11.3 |
| 11/8/2011 | N/A | 10.8 | 10.4 | 9.5 | 10.8 | 10.6 | 11.4 | 10.9 |
| 11/9/2011 | N/A | 11.0 | 10.9 | 10.1 | 11.1 | 10.9 | 11.6 | 11.2 |
| 11/10/2011 | N/A | 11.0 | 10.8 | 10.0 | 11.1 | 10.9 | 11.6 | 11.1 |
| 11/11/2011 | N/A | 10.9 | 10.5 | 9.6 | 10.9 | 10.7 | 11.5 | 11.0 |
| 11/12/2011 | N/A | 10.6 | 10.1 | 9.3 | 10.6 | 10.4 | 11.2 | 10.7 |
| 11/13/2011 | N/A | 10.1 | 9.8 | 9.1 | 10.1 | 9.9 | 10.7 | 10.2 |

2011 Chelan River Daily Temperature Data
4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|
| 11/14/2011 | N/A | 10.2 | 9.8 | 9.0 | 10.3 | 10.0 | 10.8 | 10.4 |
| 11/15/2011 | N/A | 9.8 | 9.3 | 8.5 | 9.8 | 9.6 | 10.5 | 9.9 |
| 11/16/2011 | N/A | 9.5 | 8.8 | 7.9 | 9.5 | 9.2 | 10.2 | 9.6 |
| 11/17/2011 | N/A | 9.4 | 9.1 | 8.3 | 9.4 | 9.2 | 10.0 | 9.5 |
| 11/18/2011 | N/A | 9.6 | 9.3 | 8.7 | 9.7 | 9.5 | 10.2 | 9.7 |
| 11/19/2011 | N/A | 9.5 | 9.0 | 8.3 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/20/2011 | N/A | 9.1 | 8.4 | 7.6 | 9.1 | 8.9 | 9.8 | 9.3 |
| 11/21/2011 | N/A | 9.0 | 8.6 | 7.9 | 9.0 | 8.8 | 9.6 | 9.1 |
| 11/22/2011 | N/A | 9.0 | 9.0 | 8.3 | 9.1 | 8.9 | 9.6 | 9.1 |
| 11/23/2011 | N/A | 9.4 | 9.6 | 9.2 | 9.5 | 9.4 | 10.0 | 9.5 |
| 11/24/2011 | N/A | 9.2 | 9.0 | 8.5 | 9.3 | 9.1 | 9.8 | 9.3 |
| 11/25/2011 | N/A | 9.0 | 8.7 | 8.1 | 9.0 | 8.8 | 9.6 | 9.1 |
| 11/26/2011 | N/A | 8.9 | 8.9 | 8.4 | 9.0 | 8.9 | 9.5 | 9.0 |
| 11/27/2011 | N/A | 8.9 | 8.8 | 8.2 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/28/2011 | N/A | 8.8 | 8.7 | 8.2 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/29/2011 | 9.0 | 8.8 | 8.7 | 8.2 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/30/2011 | 8.7 | 8.7 | 8.4 | 7.9 | 8.7 | 8.6 | 9.3 | 8.8 |
| 12/1/2011 | 8.5 | 8.3 | 8.0 | 7.3 | 8.1 | 7.8 | 9.0 | 8.5 |
| 12/2/2011 | 8.1 | 7.9 | 7.7 | 6.8 | 7.1 | 6.9 | 8.7 | 8.1 |
| 12/3/2011 | 8.0 | 7.9 | 7.7 | 6.9 | 7.2 | 7.0 | 8.8 | 8.1 |
| 12/4/2011 | 7.8 | 7.7 | 7.3 | 6.6 | 6.9 | 6.7 | 8.6 | 7.9 |
| 12/5/2011 | 7.7 | 7.5 | 7.1 | 6.4 | 6.7 | 6.5 | 8.5 | 7.7 |
| 12/6/2011 | 7.5 | 7.4 | 6.8 | 6.0 | 6.3 | 6.1 | 8.1 | 7.5 |
| 12/7/2011 | 7.5 | 7.3 | 6.8 | 5.9 | 6.3 | 6.1 | 8.1 | 7.5 |
| 12/8/2011 | 7.5 | 7.4 | 7.0 | 6.2 | 6.6 | 6.4 | 8.1 | 7.5 |
| 12/9/2011 | 7.3 | 7.2 | 6.7 | 5.8 | 6.3 | 6.1 | 7.9 | 7.3 |
| 12/10/2011 | 7.1 | 6.9 | 6.5 | 5.5 | 6.0 | 5.8 | 7.9 | 7.1 |
| 12/11/2011 | 6.8 | 6.7 | 6.4 | 5.6 | 6.0 | 5.8 | 7.6 | 6.9 |
| 12/12/2011 | 6.5 | 6.3 | 6.0 | 5.2 | 5.6 | 5.4 | 7.3 | 6.5 |
| 12/13/2011 | 6.2 | 6.1 | 5.6 | 4.6 | 5.1 | 4.9 | 6.8 | 6.1 |
| 12/14/2011 | 6.7 | 6.6 | 6.1 | 5.2 | 5.6 | 5.4 | 7.3 | 6.7 |
| 12/15/2011 | 6.6 | 6.5 | 6.3 | 5.6 | 5.9 | 5.8 | 7.3 | 6.6 |
| 12/16/2011 | 6.7 | 6.7 | 6.5 | 5.9 | 6.2 | 6.0 | 7.4 | 6.7 |
| 12/17/2011 | 6.7 | 6.6 | 6.4 | 5.9 | 6.2 | 6.1 | 7.3 | 6.6 |
| 12/18/2011 | 6.8 | 6.8 | 6.6 | 6.1 | 6.4 | 6.2 | 7.4 | 6.8 |
| 12/19/2011 | 6.7 | 6.6 | 6.4 | 5.8 | 6.1 | 6.0 | 7.3 | 6.7 |
| 12/20/2011 | 6.6 | 6.5 | 6.2 | 5.6 | 6.0 | 5.8 | 7.2 | 6.5 |
| 12/21/2011 | 6.1 | 6.0 | 5.6 | 5.1 | 5.4 | 5.2 | 7.1 | 6.2 |
| 12/22/2011 | 5.5 | 5.4 | 5.0 | 4.2 | 4.6 | 4.4 | 6.5 | 5.6 |
| 12/23/2011 | 5.1 | 4.9 | 4.9 | 4.3 | 4.7 | 4.5 | 6.0 | 5.2 |
| 12/24/2011 | 5.1 | 5.0 | 4.9 | 4.3 | 4.6 | 4.4 | 6.2 | 5.3 |
| 12/25/2011 | 4.9 | 4.8 | 5.0 | 4.4 | 4.7 | 4.6 | 6.0 | 5.2 |
| 12/26/2011 | 4.7 | 4.6 | 4.8 | 4.4 | 4.6 | 4.5 | 5.9 | 5.0 |
| 12/27/2011 | 4.8 | 4.7 | 4.8 | 4.3 | 4.6 | 4.4 | 5.8 | 5.0 |

2011 Chelan River Daily Temperature Data
4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|
| 12/28/2011 | 5.2 | 5.2 | 5.5 | 5.2 | 5.4 | 5.3 | 6.4 | 5.5 |
| 12/29/2011 | 5.2 | 5.2 | 5.6 | 5.5 | 5.6 | 5.5 | 6.6 | 5.6 |
| 12/30/2011 | 5.0 | 4.9 | 5.2 | 5.1 | 5.2 | 5.1 | 6.6 | 5.4 |
| 12/31/2011 | 4.8 | 4.7 | 4.7 | 4.2 | 4.5 | 4.4 | 6.3 | 5.2 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/1/2011 | 1 | N/A | 17.7 | 17.7 | 16.8 | 16.7 | 16.8 | 18.1 | 17.8 |
| 10/1/2011 | 2 | N/A | 17.7 | 17.7 | 16.7 | 16.7 | 16.7 | 18.0 | 17.8 |
| 10/1/2011 | 3 | N/A | 17.7 | 17.7 | 16.7 | 16.6 | 16.6 | 18.0 | 17.7 |
| 10/1/2011 | 4 | N/A | 17.7 | 17.7 | 16.6 | 16.6 | 16.5 | 18.0 | 17.7 |
| 10/1/2011 | 5 | N/A | 17.7 | 17.7 | 16.7 | 16.6 | 16.5 | 18.0 | 17.7 |
| 10/1/2011 | 6 | N/A | 17.6 | 17.7 | 16.6 | 16.6 | 16.5 | 18.0 | 17.7 |
| 10/1/2011 | 7 | N/A | 17.6 | 17.7 | 16.6 | 16.5 | 16.5 | 17.9 | 17.7 |
| 10/1/2011 | 8 | N/A | 17.6 | 17.7 | 16.6 | 16.5 | 16.5 | 17.9 | 17.7 |
| 10/1/2011 | 9 | N/A | 17.6 | 17.8 | 16.6 | 16.6 | 16.5 | 17.9 | 17.7 |
| 10/1/2011 | 10 | N/A | 17.7 | 17.9 | 16.7 | 16.6 | 16.6 | 17.9 | 17.7 |
| 10/1/2011 | 11 | N/A | 17.7 | 18.1 | 16.8 | 16.7 | 16.7 | 17.9 | 17.7 |
| 10/1/2011 | 12 | N/A | 17.8 | 18.4 | 17.1 | 16.9 | 17.0 | 17.9 | 17.7 |
| 10/1/2011 | 13 | N/A | 17.9 | 18.6 | 17.3 | 17.2 | 17.3 | 17.9 | 17.7 |
| 10/1/2011 | 14 | N/A | 17.9 | 18.8 | 17.5 | 17.4 | 17.5 | 17.9 | 17.7 |
| 10/1/2011 | 15 | N/A | 17.8 | 18.8 | 17.8 | 17.7 | 17.7 | 17.9 | 17.8 |
| 10/1/2011 | 16 | N/A | 17.8 | 18.7 | 17.9 | 17.8 | 17.8 | 17.9 | 17.8 |
| 10/1/2011 | 17 | N/A | 17.8 | 18.6 | 18.0 | 18.0 | 18.0 | 18.0 | 17.8 |
| 10/1/2011 | 18 | N/A | 17.8 | 18.4 | 18.0 | 18.0 | 18.0 | 18.0 | 17.8 |
| 10/1/2011 | 19 | N/A | 17.7 | 18.2 | 17.9 | 17.8 | 17.8 | 18.0 | 17.8 |
| 10/1/2011 | 20 | N/A | 17.7 | 18.1 | 17.7 | 17.6 | 17.7 | 18.0 | 17.7 |
| 10/1/2011 | 21 | N/A | 17.7 | 17.9 | 17.4 | 17.4 | 17.4 | 18.0 | 17.7 |
| 10/1/2011 | 22 | N/A | 17.6 | 17.7 | 17.2 | 17.2 | 17.2 | 17.9 | 17.7 |
| 10/1/2011 | 23 | N/A | 17.6 | 17.6 | 16.9 | 16.9 | 16.9 | 17.9 | 17.7 |
| 10/1/2011 | 24 | N/A | 17.6 | 17.5 | 16.7 | 16.7 | 16.7 | 17.9 | 17.7 |
| 10/2/2011 | 1 | N/A | 17.5 | 17.5 | 16.5 | 16.4 | 16.4 | 17.9 | 17.6 |
| 10/2/2011 | 2 | N/A | 17.5 | 17.4 | 16.2 | 16.2 | 16.2 | 17.8 | 17.6 |
| 10/2/2011 | 3 | N/A | 17.5 | 17.4 | 16.2 | 16.1 | 16.1 | 17.8 | 17.6 |
| 10/2/2011 | 4 | N/A | 17.4 | 17.4 | 16.0 | 16.0 | 15.9 | 17.8 | 17.5 |
| 10/2/2011 | 5 | N/A | 17.4 | 17.3 | 15.9 | 15.9 | 15.8 | 17.8 | 17.5 |
| 10/2/2011 | 6 | N/A | 17.4 | 17.3 | 15.9 | 15.9 | 15.8 | 17.8 | 17.5 |
| 10/2/2011 | 7 | N/A | 17.3 | 17.3 | 15.9 | 15.8 | 15.7 | 17.7 | 17.5 |
| 10/2/2011 | 8 | N/A | 17.3 | 17.3 | 15.8 | 15.8 | 15.7 | 17.7 | 17.4 |
| 10/2/2011 | 9 | N/A | 17.4 | 17.6 | 16.0 | 15.8 | 15.8 | 17.7 | 17.4 |
| 10/2/2011 | 10 | N/A | 17.4 | 17.8 | 16.0 | 15.9 | 15.9 | 17.7 | 17.4 |
| 10/2/2011 | 11 | N/A | 17.5 | 18.1 | 16.2 | 16.1 | 16.1 | 17.7 | 17.4 |
| 10/2/2011 | 12 | N/A | 17.7 | 18.5 | 16.7 | 16.3 | 16.5 | 17.7 | 17.4 |
| 10/2/2011 | 13 | N/A | 17.7 | 18.9 | 16.8 | 16.6 | 16.8 | 17.7 | 17.5 |
| 10/2/2011 | 14 | N/A | 17.7 | 19.2 | 17.1 | 17.0 | 17.0 | 17.7 | 17.5 |
| 10/2/2011 | 15 | N/A | 17.7 | 19.2 | 17.5 | 17.4 | 17.4 | 17.7 | 17.5 |
| 10/2/2011 | 16 | N/A | 17.6 | 19.0 | 17.9 | 17.8 | 17.7 | 17.7 | 17.6 |
| 10/2/2011 | 17 | N/A | 17.6 | 18.8 | 18.0 | 18.0 | 17.9 | 17.8 | 17.6 |
| 10/2/2011 | 18 | N/A | 17.6 | 18.6 | 18.0 | 18.0 | 18.0 | 17.8 | 17.6 |
| 10/2/2011 | 19 | N/A | 17.5 | 18.4 | 17.9 | 17.8 | 17.9 | 17.8 | 17.6 |
| 10/2/2011 | 20 | N/A | 17.5 | 18.3 | 17.7 | 17.6 | 17.7 | 17.8 | 17.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/2/2011 | 21 | N/A | 17.5 | 18.2 | 17.5 | 17.4 | 17.5 | 17.8 | 17.6 |
| 10/2/2011 | 22 | N/A | 17.5 | 18.0 | 17.2 | 17.2 | 17.2 | 17.8 | 17.6 |
| 10/2/2011 | 23 | N/A | 17.5 | 17.9 | 17.0 | 17.0 | 17.1 | 17.8 | 17.6 |
| 10/2/2011 | 24 | N/A | 17.5 | 17.9 | 16.8 | 16.8 | 16.9 | 17.8 | 17.5 |
| 10/3/2011 | 1 | N/A | 17.5 | 17.9 | 16.7 | 16.6 | 16.7 | 17.8 | 17.5 |
| 10/3/2011 | 2 | N/A | 17.4 | 17.8 | 16.6 | 16.5 | 16.5 | 17.8 | 17.5 |
| 10/3/2011 | 3 | N/A | 17.4 | 17.9 | 16.5 | 16.4 | 16.4 | 17.7 | 17.5 |
| 10/3/2011 | 4 | N/A | 17.4 | 17.7 | 16.4 | 16.4 | 16.3 | 17.7 | 17.5 |
| 10/3/2011 | 5 | N/A | 17.4 | 17.8 | 16.4 | 16.3 | 16.3 | 17.7 | 17.5 |
| 10/3/2011 | 6 | N/A | 17.4 | 17.8 | 16.4 | 16.3 | 16.3 | 17.7 | 17.5 |
| 10/3/2011 | 7 | N/A | 17.4 | 17.7 | 16.4 | 16.3 | 16.3 | 17.7 | 17.5 |
| 10/3/2011 | 8 | N/A | 17.4 | 17.8 | 16.4 | 16.4 | 16.3 | 17.7 | 17.4 |
| 10/3/2011 | 9 | N/A | 17.4 | 17.9 | 16.5 | 16.4 | 16.4 | 17.7 | 17.4 |
| 10/3/2011 | 10 | N/A | 17.4 | 17.9 | 16.5 | 16.4 | 16.4 | 17.7 | 17.4 |
| 10/3/2011 | 11 | N/A | 17.5 | 18.1 | 16.6 | 16.5 | 16.5 | 17.7 | 17.4 |
| 10/3/2011 | 12 | N/A | 17.5 | 18.1 | 16.7 | 16.6 | 16.6 | 17.7 | 17.4 |
| 10/3/2011 | 13 | N/A | 17.5 | 18.2 | 16.8 | 16.7 | 16.7 | 17.7 | 17.5 |
| 10/3/2011 | 14 | N/A | 17.5 | 18.2 | 16.9 | 16.8 | 16.8 | 17.7 | 17.5 |
| 10/3/2011 | 15 | N/A | 17.5 | 18.4 | 17.1 | 17.0 | 17.0 | 17.7 | 17.5 |
| 10/3/2011 | 16 | N/A | 17.5 | 18.4 | 17.2 | 17.1 | 17.1 | 17.7 | 17.5 |
| 10/3/2011 | 17 | N/A | 17.5 | 18.3 | 17.3 | 17.2 | 17.2 | 17.7 | 17.5 |
| 10/3/2011 | 18 | N/A | 17.5 | 18.2 | 17.3 | 17.3 | 17.2 | 17.7 | 17.5 |
| 10/3/2011 | 19 | N/A | 17.4 | 18.1 | 17.3 | 17.3 | 17.2 | 17.7 | 17.5 |
| 10/3/2011 | 20 | N/A | 17.4 | 18.0 | 17.3 | 17.2 | 17.2 | 17.7 | 17.5 |
| 10/3/2011 | 21 | N/A | 17.4 | 17.9 | 17.2 | 17.2 | 17.2 | 17.7 | 17.5 |
| 10/3/2011 | 22 | N/A | 17.4 | 17.8 | 17.1 | 17.0 | 17.1 | 17.7 | 17.5 |
| 10/3/2011 | 23 | N/A | 17.4 | 17.8 | 17.0 | 16.9 | 16.9 | 17.7 | 17.4 |
| 10/3/2011 | 24 | N/A | 17.4 | 17.7 | 16.9 | 16.8 | 16.8 | 17.7 | 17.4 |
| 10/4/2011 | 1 | N/A | 17.4 | 17.7 | 16.8 | 16.7 | 16.7 | 17.7 | 17.4 |
| 10/4/2011 | 2 | N/A | 17.4 | 17.7 | 16.7 | 16.6 | 16.6 | 17.6 | 17.4 |
| 10/4/2011 | 3 | N/A | 17.3 | 17.6 | 16.6 | 16.6 | 16.5 | 17.6 | 17.4 |
| 10/4/2011 | 4 | N/A | 17.3 | 17.5 | 16.6 | 16.5 | 16.5 | 17.6 | 17.4 |
| 10/4/2011 | 5 | N/A | 17.3 | 17.5 | 16.5 | 16.4 | 16.4 | 17.6 | 17.4 |
| 10/4/2011 | 6 | N/A | 17.3 | 17.5 | 16.4 | 16.3 | 16.3 | 17.6 | 17.3 |
| 10/4/2011 | 7 | N/A | 17.2 | 17.3 | 16.4 | 16.3 | 16.2 | 17.6 | 17.3 |
| 10/4/2011 | 8 | N/A | 17.3 | 17.3 | 16.3 | 16.2 | 16.2 | 17.6 | 17.3 |
| 10/4/2011 | 9 | N/A | 17.3 | 17.4 | 16.4 | 16.2 | 16.2 | 17.5 | 17.3 |
| 10/4/2011 | 10 | N/A | 17.3 | 17.5 | 16.3 | 16.2 | 16.2 | 17.5 | 17.3 |
| 10/4/2011 | 11 | N/A | 17.4 | 17.8 | 16.4 | 16.2 | 16.4 | 17.5 | 17.3 |
| 10/4/2011 | 12 | N/A | 17.4 | 17.9 | 16.4 | 16.3 | 16.3 | 17.6 | 17.3 |
| 10/4/2011 | 13 | N/A | 17.4 | 18.1 | 16.7 | 16.5 | 16.5 | 17.6 | 17.3 |
| 10/4/2011 | 14 | N/A | 17.4 | 18.2 | 16.9 | 16.8 | 16.9 | 17.6 | 17.4 |
| 10/4/2011 | 15 | N/A | 17.4 | 18.3 | 17.0 | 16.9 | 16.9 | 17.6 | 17.4 |
| 10/4/2011 | 16 | N/A | 17.4 | 18.2 | 17.1 | 17.0 | 17.0 | 17.6 | 17.4 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/4/2011 | 17 | N/A | 17.3 | 18.1 | 17.1 | 17.0 | 17.0 | 17.6 | 17.4 |
| 10/4/2011 | 18 | N/A | 17.3 | 17.9 | 17.0 | 17.0 | 16.9 | 17.6 | 17.4 |
| 10/4/2011 | 19 | N/A | 17.3 | 17.8 | 16.9 | 16.9 | 16.7 | 17.6 | 17.4 |
| 10/4/2011 | 20 | N/A | 17.3 | 17.7 | 16.7 | 16.7 | 16.6 | 17.6 | 17.4 |
| 10/4/2011 | 21 | N/A | 17.2 | 17.5 | 16.6 | 16.5 | 16.5 | 17.6 | 17.3 |
| 10/4/2011 | 22 | N/A | 17.2 | 17.3 | 16.4 | 16.3 | 16.3 | 17.6 | 17.3 |
| 10/4/2011 | 23 | N/A | 17.2 | 17.4 | 16.2 | 16.2 | 16.2 | 17.6 | 17.3 |
| 10/4/2011 | 24 | N/A | 17.2 | 17.4 | 16.1 | 16.1 | 16.0 | 17.5 | 17.3 |
| 10/5/2011 | 1 | N/A | 17.2 | 17.4 | 16.0 | 16.0 | 15.9 | 17.5 | 17.2 |
| 10/5/2011 | 2 | N/A | 17.2 | 17.4 | 16.0 | 15.9 | 15.8 | 17.5 | 17.2 |
| 10/5/2011 | 3 | N/A | 17.2 | 17.4 | 15.9 | 15.9 | 15.8 | 17.5 | 17.2 |
| 10/5/2011 | 4 | N/A | 17.1 | 17.3 | 15.9 | 15.8 | 15.8 | 17.4 | 17.2 |
| 10/5/2011 | 5 | N/A | 17.1 | 17.3 | 15.8 | 15.8 | 15.7 | 17.4 | 17.1 |
| 10/5/2011 | 6 | N/A | 17.1 | 17.4 | 15.8 | 15.7 | 15.6 | 17.4 | 17.1 |
| 10/5/2011 | 7 | N/A | 17.0 | 17.4 | 15.7 | 15.7 | 15.6 | 17.3 | 17.1 |
| 10/5/2011 | 8 | N/A | 17.0 | 17.2 | 15.7 | 15.6 | 15.5 | 17.3 | 17.0 |
| 10/5/2011 | 9 | N/A | 17.0 | 17.2 | 15.6 | 15.6 | 15.5 | 17.3 | 17.0 |
| 10/5/2011 | 10 | N/A | 16.9 | 17.1 | 15.6 | 15.5 | 15.5 | 17.2 | 17.0 |
| 10/5/2011 | 11 | N/A | 16.9 | 17.0 | 15.6 | 15.5 | 15.5 | 17.2 | 17.0 |
| 10/5/2011 | 12 | N/A | 16.9 | 17.0 | 15.6 | 15.5 | 15.5 | 17.2 | 16.9 |
| 10/5/2011 | 13 | N/A | 16.9 | 17.1 | 15.7 | 15.6 | 15.5 | 17.2 | 16.9 |
| 10/5/2011 | 14 | N/A | 16.9 | 17.2 | 15.7 | 15.6 | 15.6 | 17.2 | 16.9 |
| 10/5/2011 | 15 | N/A | 16.9 | 17.2 | 15.8 | 15.7 | 15.7 | 17.2 | 16.9 |
| 10/5/2011 | 16 | N/A | 16.8 | 17.4 | 15.9 | 15.8 | 15.7 | 17.2 | 16.9 |
| 10/5/2011 | 17 | N/A | 16.8 | 17.3 | 15.9 | 15.9 | 15.8 | 17.2 | 16.9 |
| 10/5/2011 | 18 | N/A | 16.8 | 17.1 | 16.0 | 15.9 | 15.8 | 17.2 | 16.9 |
| 10/5/2011 | 19 | N/A | 16.8 | 17.0 | 16.0 | 15.9 | 15.8 | 17.1 | 16.9 |
| 10/5/2011 | 20 | N/A | 16.8 | 16.9 | 15.9 | 15.9 | 15.8 | 17.1 | 16.9 |
| 10/5/2011 | 21 | N/A | 16.8 | 16.8 | 15.9 | 15.9 | 15.8 | 17.1 | 16.8 |
| 10/5/2011 | 22 | N/A | 16.8 | 16.8 | 15.9 | 15.8 | 15.8 | 17.1 | 16.8 |
| 10/5/2011 | 23 | N/A | 16.7 | 16.8 | 15.8 | 15.8 | 15.7 | 17.1 | 16.8 |
| 10/5/2011 | 24 | N/A | 16.7 | 16.8 | 15.8 | 15.7 | 15.7 | 17.1 | 16.8 |
| 10/6/2011 | 1 | N/A | 16.7 | 16.9 | 15.8 | 15.7 | 15.7 | 17.1 | 16.8 |
| 10/6/2011 | 2 | N/A | 16.7 | 16.8 | 15.7 | 15.7 | 15.6 | 17.0 | 16.8 |
| 10/6/2011 | 3 | N/A | 16.7 | 16.9 | 15.7 | 15.7 | 15.6 | 17.0 | 16.7 |
| 10/6/2011 | 4 | N/A | 16.7 | 16.7 | 15.7 | 15.6 | 15.5 | 17.0 | 16.7 |
| 10/6/2011 | 5 | N/A | 16.6 | 16.7 | 15.6 | 15.6 | 15.5 | 17.0 | 16.7 |
| 10/6/2011 | 6 | N/A | 16.6 | 16.7 | 15.6 | 15.6 | 15.5 | 17.0 | 16.7 |
| 10/6/2011 | 7 | N/A | 16.6 | 16.5 | 15.5 | 15.5 | 15.4 | 16.9 | 16.7 |
| 10/6/2011 | 8 | N/A | 16.6 | 16.6 | 15.5 | 15.5 | 15.4 | 16.9 | 16.6 |
| 10/6/2011 | 9 | N/A | 16.6 | 16.7 | 15.5 | 15.5 | 15.4 | 16.9 | 16.6 |
| 10/6/2011 | 10 | N/A | 16.6 | 16.8 | 15.6 | 15.5 | 15.5 | 16.9 | 16.6 |
| 10/6/2011 | 11 | N/A | 16.7 | 17.1 | 15.8 | 15.6 | 15.7 | 16.9 | 16.6 |
| 10/6/2011 | 12 | N/A | 16.8 | 17.5 | 15.9 | 15.7 | 15.8 | 17.0 | 16.7 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/6/2011 | 13 | N/A | 16.9 | 18.1 | 16.2 | 16.0 | 16.2 | 17.0 | 16.7 |
| 10/6/2011 | 14 | N/A | 16.8 | 18.5 | 16.4 | 16.4 | 16.6 | 17.0 | 16.8 |
| 10/6/2011 | 15 | N/A | 16.9 | 18.7 | 16.9 | 16.9 | 17.0 | 17.1 | 16.9 |
| 10/6/2011 | 16 | N/A | 16.9 | 18.6 | 17.4 | 17.4 | 17.2 | 17.1 | 16.9 |
| 10/6/2011 | 17 | N/A | 16.9 | 18.2 | 17.8 | 17.7 | 17.6 | 17.2 | 16.9 |
| 10/6/2011 | 18 | N/A | 16.9 | 17.9 | 17.8 | 17.8 | 17.6 | 17.2 | 17.0 |
| 10/6/2011 | 19 | N/A | 16.9 | 17.4 | 17.7 | 17.6 | 17.6 | 17.2 | 17.0 |
| 10/6/2011 | 20 | N/A | 16.8 | 17.1 | 17.3 | 17.3 | 17.3 | 17.1 | 16.9 |
| 10/6/2011 | 21 | N/A | 16.8 | 16.7 | 17.0 | 16.9 | 16.9 | 17.1 | 16.9 |
| 10/6/2011 | 22 | N/A | 16.8 | 16.6 | 16.6 | 16.5 | 16.6 | 17.1 | 16.9 |
| 10/6/2011 | 23 | N/A | 16.7 | 16.5 | 16.2 | 16.1 | 16.2 | 17.1 | 16.8 |
| 10/6/2011 | 24 | N/A | 16.7 | 16.5 | 15.8 | 15.8 | 15.8 | 17.1 | 16.8 |
| 10/7/2011 | 1 | N/A | 16.7 | 16.4 | 15.6 | 15.6 | 15.5 | 17.0 | 16.8 |
| 10/7/2011 | 2 | N/A | 16.6 | 16.3 | 15.4 | 15.4 | 15.3 | 17.0 | 16.7 |
| 10/7/2011 | 3 | N/A | 16.6 | 16.3 | 15.3 | 15.3 | 15.2 | 17.0 | 16.7 |
| 10/7/2011 | 4 | N/A | 16.6 | 16.4 | 15.3 | 15.2 | 15.2 | 17.0 | 16.7 |
| 10/7/2011 | 5 | N/A | 16.5 | 16.5 | 15.2 | 15.2 | 15.1 | 16.9 | 16.6 |
| 10/7/2011 | 6 | N/A | 16.5 | 16.4 | 15.2 | 15.1 | 15.1 | 16.9 | 16.6 |
| 10/7/2011 | 7 | N/A | 16.5 | 16.4 | 15.2 | 15.1 | 15.0 | 16.9 | 16.6 |
| 10/7/2011 | 8 | N/A | 16.5 | 16.3 | 15.2 | 15.2 | 15.1 | 16.8 | 16.6 |
| 10/7/2011 | 9 | N/A | 16.5 | 16.4 | 15.3 | 15.2 | 15.1 | 16.8 | 16.5 |
| 10/7/2011 | 10 | N/A | 16.5 | 16.7 | 15.6 | 15.3 | 15.4 | 16.8 | 16.5 |
| 10/7/2011 | 11 | N/A | 16.7 | 17.2 | 15.7 | 15.4 | 15.6 | 16.9 | 16.6 |
| 10/7/2011 | 12 | N/A | 16.8 | 17.7 | 15.8 | 15.5 | 15.7 | 16.9 | 16.6 |
| 10/7/2011 | 13 | N/A | 16.7 | 18.4 | 16.0 | 15.9 | 16.0 | 16.9 | 16.7 |
| 10/7/2011 | 14 | N/A | 16.8 | 18.7 | 16.5 | 16.4 | 16.4 | 17.0 | 16.7 |
| 10/7/2011 | 15 | N/A | 16.9 | 18.8 | 17.1 | 17.0 | 16.8 | 17.0 | 16.8 |
| 10/7/2011 | 16 | N/A | 16.8 | 18.7 | 17.5 | 17.5 | 17.4 | 17.0 | 16.8 |
| 10/7/2011 | 17 | N/A | 16.8 | 18.3 | 17.7 | 17.7 | 17.6 | 17.1 | 16.9 |
| 10/7/2011 | 18 | N/A | 16.8 | 18.0 | 17.8 | 17.7 | 17.6 | 17.1 | 16.9 |
| 10/7/2011 | 19 | N/A | 16.8 | 17.7 | 17.6 | 17.5 | 17.4 | 17.1 | 16.9 |
| 10/7/2011 | 20 | N/A | 16.7 | 17.2 | 17.2 | 17.2 | 17.2 | 17.1 | 16.8 |
| 10/7/2011 | 21 | N/A | 16.7 | 16.9 | 16.9 | 16.8 | 16.9 | 17.0 | 16.8 |
| 10/7/2011 | 22 | N/A | 16.7 | 16.9 | 16.5 | 16.5 | 16.5 | 17.0 | 16.8 |
| 10/7/2011 | 23 | N/A | 16.7 | 16.9 | 16.1 | 16.1 | 16.2 | 17.0 | 16.7 |
| 10/7/2011 | 24 | N/A | 16.6 | 16.7 | 15.8 | 15.7 | 15.8 | 17.0 | 16.7 |
| 10/8/2011 | 1 | N/A | 16.6 | 16.5 | 15.5 | 15.5 | 15.5 | 17.0 | 16.7 |
| 10/8/2011 | 2 | N/A | 16.5 | 16.7 | 15.4 | 15.3 | 15.3 | 16.9 | 16.7 |
| 10/8/2011 | 3 | N/A | 16.5 | 16.5 | 15.2 | 15.2 | 15.1 | 16.9 | 16.6 |
| 10/8/2011 | 4 | N/A | 16.4 | 16.4 | 15.1 | 15.1 | 15.0 | 16.9 | 16.6 |
| 10/8/2011 | 5 | N/A | 16.4 | 16.3 | 14.9 | 14.9 | 14.9 | 16.8 | 16.5 |
| 10/8/2011 | 6 | N/A | 16.3 | 16.3 | 14.8 | 14.8 | 14.7 | 16.8 | 16.5 |
| 10/8/2011 | 7 | N/A | 16.3 | 16.2 | 14.7 | 14.7 | 14.6 | 16.8 | 16.4 |
| 10/8/2011 | 8 | N/A | 16.3 | 16.1 | 14.7 | 14.6 | 14.5 | 16.7 | 16.4 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/8/2011 | 9 | N/A | 16.3 | 16.3 | 14.7 | 14.6 | 14.5 | 16.7 | 16.4 |
| 10/8/2011 | 10 | N/A | 16.3 | 16.8 | 14.9 | 14.6 | 14.7 | 16.7 | 16.4 |
| 10/8/2011 | 11 | N/A | 16.4 | 17.2 | 15.1 | 14.7 | 14.9 | 16.7 | 16.4 |
| 10/8/2011 | 12 | N/A | 16.6 | 17.8 | 15.3 | 14.9 | 15.2 | 16.8 | 16.5 |
| 10/8/2011 | 13 | N/A | 16.6 | 18.3 | 15.5 | 15.3 | 15.4 | 16.8 | 16.5 |
| 10/8/2011 | 14 | N/A | 16.6 | 18.6 | 16.0 | 16.0 | 16.0 | 16.8 | 16.6 |
| 10/8/2011 | 15 | N/A | 16.7 | 18.5 | 16.6 | 16.6 | 16.4 | 16.9 | 16.6 |
| 10/8/2011 | 16 | N/A | 16.7 | 18.3 | 17.1 | 17.0 | 16.8 | 16.9 | 16.7 |
| 10/8/2011 | 17 | N/A | 16.7 | 18.2 | 17.3 | 17.2 | 17.2 | 16.9 | 16.7 |
| 10/8/2011 | 18 | N/A | 16.6 | 17.9 | 17.2 | 17.2 | 17.1 | 16.9 | 16.7 |
| 10/8/2011 | 19 | N/A | 16.6 | 17.7 | 17.0 | 17.0 | 17.0 | 16.9 | 16.7 |
| 10/8/2011 | 20 | N/A | 16.6 | 17.4 | 16.7 | 16.7 | 16.7 | 16.9 | 16.7 |
| 10/8/2011 | 21 | N/A | 16.6 | 17.2 | 16.4 | 16.3 | 16.4 | 16.9 | 16.7 |
| 10/8/2011 | 22 | N/A | 16.5 | 17.1 | 16.0 | 16.0 | 16.1 | 16.9 | 16.6 |
| 10/8/2011 | 23 | N/A | 16.5 | 17.1 | 15.7 | 15.7 | 15.7 | 16.9 | 16.6 |
| 10/8/2011 | 24 | N/A | 16.5 | 17.1 | 15.5 | 15.4 | 15.5 | 16.9 | 16.6 |
| 10/9/2011 | 1 | N/A | 16.5 | 17.1 | 15.3 | 15.2 | 15.2 | 16.8 | 16.6 |
| 10/9/2011 | 2 | N/A | 16.5 | 17.1 | 15.2 | 15.2 | 15.1 | 16.8 | 16.5 |
| 10/9/2011 | 3 | N/A | 16.4 | 17.0 | 15.2 | 15.1 | 15.0 | 16.8 | 16.5 |
| 10/9/2011 | 4 | N/A | 16.4 | 17.0 | 15.1 | 15.1 | 15.0 | 16.8 | 16.5 |
| 10/9/2011 | 5 | N/A | 16.4 | 17.0 | 15.1 | 15.1 | 15.0 | 16.8 | 16.5 |
| 10/9/2011 | 6 | N/A | 16.4 | 17.0 | 15.1 | 15.1 | 15.0 | 16.7 | 16.5 |
| 10/9/2011 | 7 | N/A | 16.4 | 17.0 | 15.2 | 15.1 | 15.0 | 16.7 | 16.5 |
| 10/9/2011 | 8 | N/A | 16.4 | 17.2 | 15.2 | 15.1 | 15.0 | 16.7 | 16.4 |
| 10/9/2011 | 9 | N/A | 16.4 | 16.8 | 15.2 | 15.2 | 15.1 | 16.7 | 16.4 |
| 10/9/2011 | 10 | N/A | 16.4 | 17.1 | 15.3 | 15.2 | 15.2 | 16.7 | 16.4 |
| 10/9/2011 | 11 | N/A | 16.4 | 17.1 | 15.4 | 15.2 | 15.3 | 16.7 | 16.4 |
| 10/9/2011 | 12 | N/A | 16.5 | 17.4 | 15.5 | 15.4 | 15.4 | 16.7 | 16.4 |
| 10/9/2011 | 13 | N/A | 16.5 | 17.8 | 15.8 | 15.7 | 15.8 | 16.8 | 16.5 |
| 10/9/2011 | 14 | N/A | 16.5 | 17.9 | 16.0 | 15.9 | 16.0 | 16.8 | 16.5 |
| 10/9/2011 | 15 | N/A | 16.6 | 18.2 | 16.3 | 16.2 | 16.3 | 16.8 | 16.6 |
| 10/9/2011 | 16 | N/A | 16.6 | 18.1 | 16.6 | 16.5 | 16.5 | 16.8 | 16.6 |
| 10/9/2011 | 17 | N/A | 16.6 | 18.0 | 16.9 | 16.8 | 16.7 | 16.8 | 16.6 |
| 10/9/2011 | 18 | N/A | 16.5 | 17.5 | 16.9 | 16.8 | 16.7 | 16.8 | 16.6 |
| 10/9/2011 | 19 | N/A | 16.5 | 17.2 | 16.8 | 16.8 | 16.7 | 16.8 | 16.6 |
| 10/9/2011 | 20 | N/A | 16.5 | 17.0 | 16.6 | 16.6 | 16.6 | 16.8 | 16.6 |
| 10/9/2011 | 21 | N/A | 16.5 | 17.0 | 16.4 | 16.3 | 16.4 | 16.8 | 16.6 |
| 10/9/2011 | 22 | N/A | 16.5 | 16.9 | 16.2 | 16.1 | 16.2 | 16.8 | 16.6 |
| 10/9/2011 | 23 | N/A | 16.5 | 16.9 | 16.0 | 15.9 | 16.0 | 16.8 | 16.6 |
| 10/9/2011 | 24 | N/A | 16.5 | 17.0 | 15.8 | 15.7 | 15.8 | 16.8 | 16.5 |
| 10/10/2011 | 1 | N/A | 16.5 | 16.9 | 15.7 | 15.7 | 15.7 | 16.8 | 16.5 |
| 10/10/2011 | 2 | N/A | 16.5 | 16.9 | 15.7 | 15.7 | 15.6 | 16.8 | 16.5 |
| 10/10/2011 | 3 | N/A | 16.4 | 16.9 | 15.7 | 15.7 | 15.6 | 16.8 | 16.5 |
| 10/10/2011 | 4 | N/A | 16.4 | 16.9 | 15.7 | 15.6 | 15.6 | 16.8 | 16.5 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/10/2011 | 5 | N/A | 16.4 | 17.0 | 15.7 | 15.6 | 15.6 | 16.7 | 16.5 |
| 10/10/2011 | 6 | N/A | 16.4 | 17.0 | 15.6 | 15.6 | 15.5 | 16.7 | 16.5 |
| 10/10/2011 | 7 | N/A | 16.4 | 16.9 | 15.6 | 15.6 | 15.5 | 16.7 | 16.5 |
| 10/10/2011 | 8 | N/A | 16.4 | 16.8 | 15.6 | 15.5 | 15.5 | 16.7 | 16.4 |
| 10/10/2011 | 9 | N/A | 16.4 | 16.8 | 15.6 | 15.5 | 15.5 | 16.7 | 16.4 |
| 10/10/2011 | 10 | N/A | 16.4 | 17.0 | 15.6 | 15.5 | 15.5 | 16.7 | 16.4 |
| 10/10/2011 | 11 | N/A | 16.4 | 17.0 | 15.6 | 15.5 | 15.5 | 16.7 | 16.4 |
| 10/10/2011 | 12 | N/A | 16.4 | 17.2 | 15.7 | 15.6 | 15.6 | 16.7 | 16.4 |
| 10/10/2011 | 13 | N/A | 16.4 | 17.2 | 15.8 | 15.7 | 15.7 | 16.7 | 16.4 |
| 10/10/2011 | 14 | N/A | 16.4 | 17.2 | 15.8 | 15.7 | 15.7 | 16.7 | 16.4 |
| 10/10/2011 | 15 | N/A | 16.4 | 17.2 | 15.9 | 15.8 | 15.8 | 16.7 | 16.4 |
| 10/10/2011 | 16 | N/A | 16.5 | 17.2 | 16.0 | 15.9 | 15.8 | 16.7 | 16.4 |
| 10/10/2011 | 17 | N/A | 16.4 | 17.1 | 15.9 | 15.9 | 15.8 | 16.7 | 16.5 |
| 10/10/2011 | 18 | N/A | 16.4 | 17.1 | 15.9 | 15.9 | 15.8 | 16.7 | 16.5 |
| 10/10/2011 | 19 | N/A | 16.4 | 17.0 | 15.9 | 15.9 | 15.8 | 16.7 | 16.4 |
| 10/10/2011 | 20 | N/A | 16.4 | 16.8 | 15.9 | 15.8 | 15.8 | 16.7 | 16.4 |
| 10/10/2011 | 21 | N/A | 16.3 | 16.6 | 15.8 | 15.7 | 15.7 | 16.7 | 16.4 |
| 10/10/2011 | 22 | N/A | 16.3 | 16.5 | 15.7 | 15.6 | 15.6 | 16.6 | 16.4 |
| 10/10/2011 | 23 | N/A | 16.3 | 16.5 | 15.6 | 15.5 | 15.5 | 16.6 | 16.4 |
| 10/10/2011 | 24 | N/A | 16.3 | 16.5 | 15.4 | 15.3 | 15.3 | 16.6 | 16.4 |
| 10/11/2011 | 1 | N/A | 16.3 | 16.4 | 15.3 | 15.2 | 15.2 | 16.6 | 16.3 |
| 10/11/2011 | 2 | N/A | 16.3 | 16.4 | 15.2 | 15.2 | 15.1 | 16.6 | 16.3 |
| 10/11/2011 | 3 | N/A | 16.2 | 16.4 | 15.2 | 15.2 | 15.1 | 16.6 | 16.3 |
| 10/11/2011 | 4 | N/A | 16.2 | 16.4 | 15.2 | 15.1 | 15.0 | 16.5 | 16.3 |
| 10/11/2011 | 5 | N/A | 16.2 | 16.4 | 15.1 | 15.1 | 15.0 | 16.5 | 16.2 |
| 10/11/2011 | 6 | N/A | 16.2 | 16.3 | 15.1 | 15.1 | 15.0 | 16.5 | 16.2 |
| 10/11/2011 | 7 | N/A | 16.1 | 16.4 | 15.1 | 15.0 | 14.9 | 16.5 | 16.2 |
| 10/11/2011 | 8 | N/A | 16.1 | 16.3 | 15.1 | 15.0 | 14.9 | 16.5 | 16.2 |
| 10/11/2011 | 9 | N/A | 16.1 | 16.3 | 15.1 | 15.0 | 14.8 | 16.4 | 16.2 |
| 10/11/2011 | 10 | N/A | 16.1 | 16.7 | 15.3 | 15.0 | 15.1 | 16.5 | 16.2 |
| 10/11/2011 | 11 | N/A | 16.2 | 16.9 | 15.3 | 15.0 | 15.2 | 16.5 | 16.2 |
| 10/11/2011 | 12 | N/A | 16.3 | 17.2 | 15.3 | 15.0 | 15.2 | 16.5 | 16.2 |
| 10/11/2011 | 13 | N/A | 16.3 | 17.6 | 15.3 | 15.2 | 15.3 | 16.5 | 16.2 |
| 10/11/2011 | 14 | N/A | 16.3 | 17.8 | 15.7 | 15.6 | 15.7 | 16.5 | 16.2 |
| 10/11/2011 | 15 | N/A | 16.2 | 17.9 | 16.1 | 16.1 | 16.0 | 16.5 | 16.2 |
| 10/11/2011 | 16 | N/A | 16.2 | 17.7 | 16.3 | 16.3 | 16.3 | 16.5 | 16.3 |
| 10/11/2011 | 17 | N/A | 16.2 | 17.2 | 16.5 | 16.5 | 16.3 | 16.5 | 16.3 |
| 10/11/2011 | 18 | N/A | 16.1 | 16.8 | 16.5 | 16.6 | 16.3 | 16.5 | 16.2 |
| 10/11/2011 | 19 | N/A | 16.1 | 16.4 | 16.4 | 16.3 | 16.2 | 16.4 | 16.2 |
| 10/11/2011 | 20 | N/A | 16.1 | 16.1 | 16.0 | 15.9 | 15.9 | 16.4 | 16.2 |
| 10/11/2011 | 21 | N/A | 16.0 | 15.9 | 15.5 | 15.5 | 15.5 | 16.3 | 16.1 |
| 10/11/2011 | 22 | N/A | 16.0 | 15.8 | 15.1 | 15.0 | 15.1 | 16.2 | 16.0 |
| 10/11/2011 | 23 | N/A | 15.9 | 15.7 | 14.7 | 14.7 | 14.6 | 16.2 | 15.9 |
| 10/11/2011 | 24 | N/A | 15.8 | 15.6 | 14.4 | 14.4 | 14.3 | 16.1 | 15.8 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/12/2011 | 1 | N/A | 15.8 | 15.7 | 14.3 | 14.2 | 14.1 | 16.1 | 15.8 |
| 10/12/2011 | 2 | N/A | 15.7 | 15.6 | 14.1 | 14.1 | 13.9 | 16.0 | 15.7 |
| 10/12/2011 | 3 | N/A | 15.6 | 15.6 | 14.0 | 14.0 | 13.8 | 16.0 | 15.7 |
| 10/12/2011 | 4 | N/A | 15.6 | 15.5 | 14.0 | 13.9 | 13.7 | 15.9 | 15.7 |
| 10/12/2011 | 5 | N/A | 15.5 | 15.3 | 13.9 | 13.8 | 13.7 | 15.9 | 15.6 |
| 10/12/2011 | 6 | N/A | 15.5 | 15.3 | 13.8 | 13.7 | 13.6 | 15.9 | 15.6 |
| 10/12/2011 | 7 | N/A | 15.4 | 15.2 | 13.7 | 13.6 | 13.5 | 15.8 | 15.6 |
| 10/12/2011 | 8 | N/A | 15.4 | 15.3 | 13.6 | 13.5 | 13.4 | 15.8 | 15.5 |
| 10/12/2011 | 9 | N/A | 15.4 | 15.6 | 13.6 | 13.5 | 13.4 | 15.7 | 15.4 |
| 10/12/2011 | 10 | N/A | 15.4 | 15.8 | 13.8 | 13.6 | 13.5 | 15.7 | 15.4 |
| 10/12/2011 | 11 | N/A | 15.4 | 16.0 | 13.9 | 13.7 | 13.7 | 15.7 | 15.4 |
| 10/12/2011 | 12 | N/A | 15.5 | 16.2 | 14.1 | 13.9 | 13.9 | 15.7 | 15.4 |
| 10/12/2011 | 13 | N/A | 15.4 | 16.3 | 14.3 | 14.1 | 14.0 | 15.8 | 15.5 |
| 10/12/2011 | 14 | N/A | 15.5 | 16.6 | 14.5 | 14.4 | 14.4 | 15.8 | 15.5 |
| 10/12/2011 | 15 | N/A | 15.5 | 16.7 | 14.7 | 14.6 | 14.7 | 15.8 | 15.5 |
| 10/12/2011 | 16 | N/A | 15.5 | 16.7 | 14.9 | 14.8 | 14.8 | 15.8 | 15.5 |
| 10/12/2011 | 17 | N/A | 15.4 | 16.5 | 15.1 | 15.1 | 14.8 | 15.8 | 15.5 |
| 10/12/2011 | 18 | N/A | 15.4 | 16.2 | 15.2 | 15.1 | 14.9 | 15.7 | 15.5 |
| 10/12/2011 | 19 | N/A | 15.3 | 15.9 | 15.0 | 15.0 | 14.8 | 15.7 | 15.4 |
| 10/12/2011 | 20 | N/A | 15.3 | 15.6 | 14.8 | 14.8 | 14.6 | 15.7 | 15.4 |
| 10/12/2011 | 21 | N/A | 15.2 | 15.5 | 14.6 | 14.6 | 14.5 | 15.6 | 15.3 |
| 10/12/2011 | 22 | N/A | 15.2 | 15.5 | 14.4 | 14.3 | 14.3 | 15.6 | 15.3 |
| 10/12/2011 | 23 | N/A | 15.2 | 15.5 | 14.1 | 14.1 | 14.1 | 15.6 | 15.2 |
| 10/12/2011 | 24 | N/A | 15.1 | 15.5 | 14.0 | 13.9 | 13.9 | 15.5 | 15.2 |
| 10/13/2011 | 1 | N/A | 15.1 | 15.6 | 13.9 | 13.8 | 13.8 | 15.5 | 15.2 |
| 10/13/2011 | 2 | N/A | 15.1 | 15.6 | 13.9 | 13.8 | 13.7 | 15.5 | 15.2 |
| 10/13/2011 | 3 | N/A | 15.1 | 15.5 | 13.8 | 13.8 | 13.7 | 15.5 | 15.2 |
| 10/13/2011 | 4 | N/A | 15.0 | 15.5 | 13.9 | 13.8 | 13.7 | 15.4 | 15.2 |
| 10/13/2011 | 5 | N/A | 15.0 | 15.4 | 13.8 | 13.8 | 13.7 | 15.4 | 15.1 |
| 10/13/2011 | 6 | N/A | 15.0 | 15.4 | 13.8 | 13.8 | 13.6 | 15.4 | 15.1 |
| 10/13/2011 | 7 | N/A | 14.9 | 15.3 | 13.7 | 13.7 | 13.5 | 15.4 | 15.1 |
| 10/13/2011 | 8 | N/A | 14.9 | 15.2 | 13.6 | 13.6 | 13.4 | 15.4 | 15.1 |
| 10/13/2011 | 9 | N/A | 14.9 | 15.2 | 13.7 | 13.5 | 13.4 | 15.4 | 15.1 |
| 10/13/2011 | 10 | N/A | 15.0 | 15.6 | 13.9 | 13.5 | 13.6 | 15.4 | 15.1 |
| 10/13/2011 | 11 | N/A | 15.0 | 15.9 | 14.1 | 13.6 | 13.8 | 15.4 | 15.1 |
| 10/13/2011 | 12 | N/A | 15.1 | 16.4 | 14.1 | 13.6 | 13.9 | 15.4 | 15.1 |
| 10/13/2011 | 13 | N/A | 15.2 | 16.6 | 14.1 | 13.9 | 14.1 | 15.5 | 15.2 |
| 10/13/2011 | 14 | N/A | 15.2 | 16.9 | 14.3 | 14.3 | 14.4 | 15.5 | 15.2 |
| 10/13/2011 | 15 | N/A | 15.3 | 17.2 | 14.9 | 14.9 | 14.9 | 15.5 | 15.3 |
| 10/13/2011 | 16 | N/A | 15.2 | 16.9 | 15.4 | 15.4 | 15.3 | 15.6 | 15.3 |
| 10/13/2011 | 17 | N/A | 15.2 | 16.6 | 15.7 | 15.7 | 15.5 | 15.6 | 15.3 |
| 10/13/2011 | 18 | N/A | 15.2 | 16.3 | 15.8 | 15.8 | 15.6 | 15.6 | 15.3 |
| 10/13/2011 | 19 | N/A | 15.2 | 16.0 | 15.7 | 15.6 | 15.6 | 15.6 | 15.3 |
| 10/13/2011 | 20 | N/A | 15.2 | 15.8 | 15.4 | 15.4 | 15.4 | 15.5 | 15.2 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/13/2011 | 21 | N/A | 15.1 | 15.7 | 15.1 | 15.1 | 15.1 | 15.5 | 15.2 |
| 10/13/2011 | 22 | N/A | 15.1 | 15.6 | 14.8 | 14.8 | 14.8 | 15.5 | 15.2 |
| 10/13/2011 | 23 | N/A | 15.1 | 15.5 | 14.5 | 14.5 | 14.5 | 15.5 | 15.2 |
| 10/13/2011 | 24 | N/A | 15.1 | 15.5 | 14.3 | 14.3 | 14.3 | 15.5 | 15.2 |
| 10/14/2011 | 1 | N/A | 15.1 | 15.6 | 14.2 | 14.1 | 14.1 | 15.5 | 15.2 |
| 10/14/2011 | 2 | N/A | 15.1 | 15.6 | 14.1 | 14.0 | 14.0 | 15.5 | 15.2 |
| 10/14/2011 | 3 | N/A | 15.0 | 15.6 | 14.1 | 14.0 | 13.9 | 15.4 | 15.2 |
| 10/14/2011 | 4 | N/A | 15.0 | 15.6 | 14.0 | 14.0 | 13.9 | 15.4 | 15.2 |
| 10/14/2011 | 5 | N/A | 15.0 | 15.6 | 14.0 | 13.9 | 13.9 | 15.4 | 15.1 |
| 10/14/2011 | 6 | N/A | 15.0 | 15.4 | 14.0 | 13.9 | 13.9 | 15.4 | 15.1 |
| 10/14/2011 | 7 | N/A | 15.0 | 15.4 | 14.0 | 13.9 | 13.8 | 15.4 | 15.1 |
| 10/14/2011 | 8 | N/A | 15.0 | 15.3 | 13.9 | 13.9 | 13.8 | 15.3 | 15.1 |
| 10/14/2011 | 9 | N/A | 15.0 | 15.5 | 14.0 | 13.9 | 13.9 | 15.3 | 15.0 |
| 10/14/2011 | 10 | N/A | 15.0 | 15.3 | 14.1 | 13.9 | 13.9 | 15.3 | 15.0 |
| 10/14/2011 | 11 | N/A | 15.1 | 15.4 | 14.1 | 14.0 | 14.0 | 15.4 | 15.0 |
| 10/14/2011 | 12 | N/A | 15.1 | 15.7 | 14.3 | 14.1 | 14.2 | 15.4 | 15.1 |
| 10/14/2011 | 13 | N/A | 15.1 | 16.0 | 14.4 | 14.9 | 14.9 | 15.4 | 15.1 |
| 10/14/2011 | 14 | N/A | 15.2 | 16.3 | 14.6 | 14.9 | 14.9 | 15.4 | 15.1 |
| 10/14/2011 | 15 | N/A | 15.2 | 16.3 | 14.8 | 15.0 | 15.0 | 15.4 | 15.1 |
| 10/14/2011 | 16 | N/A | 15.1 | 16.2 | 15.1 | 15.0 | 15.0 | 15.4 | 15.2 |
| 10/14/2011 | 17 | N/A | 15.1 | 15.8 | 15.2 | 15.1 | 15.1 | 15.4 | 15.2 |
| 10/14/2011 | 18 | N/A | 15.1 | 15.8 | 15.2 | 15.1 | 15.1 | 15.4 | 15.2 |
| 10/14/2011 | 19 | N/A | 15.1 | 15.7 | 15.1 | 15.1 | 15.1 | 15.4 | 15.2 |
| 10/14/2011 | 20 | N/A | 15.1 | 15.5 | 14.9 | 15.0 | 15.0 | 15.4 | 15.2 |
| 10/14/2011 | 21 | N/A | 15.1 | 15.4 | 14.7 | 15.0 | 14.9 | 15.4 | 15.2 |
| 10/14/2011 | 22 | N/A | 15.1 | 15.3 | 14.6 | 14.9 | 14.9 | 15.4 | 15.2 |
| 10/14/2011 | 23 | N/A | 15.1 | 15.3 | 14.6 | 14.9 | 14.8 | 15.4 | 15.2 |
| 10/14/2011 | 24 | N/A | 15.1 | 15.3 | 14.5 | 14.9 | 14.8 | 15.4 | 15.2 |
| 10/15/2011 | 1 | N/A | 15.1 | 15.2 | 14.4 | 14.9 | 14.8 | 15.4 | 15.2 |
| 10/15/2011 | 2 | N/A | 15.0 | 15.2 | 14.3 | 14.8 | 14.7 | 15.4 | 15.1 |
| 10/15/2011 | 3 | N/A | 15.0 | 15.0 | 14.2 | 14.8 | 14.7 | 15.4 | 15.1 |
| 10/15/2011 | 4 | N/A | 15.0 | 14.9 | 14.1 | 14.8 | 14.6 | 15.3 | 15.1 |
| 10/15/2011 | 5 | N/A | 14.9 | 14.8 | 14.0 | 14.7 | 14.6 | 15.3 | 15.1 |
| 10/15/2011 | 6 | N/A | 14.9 | 14.8 | 13.9 | 14.6 | 14.5 | 15.3 | 15.0 |
| 10/15/2011 | 7 | N/A | 14.9 | 14.7 | 13.8 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/15/2011 | 8 | N/A | 14.8 | 14.8 | 13.7 | 14.6 | 14.4 | 15.2 | 15.0 |
| 10/15/2011 | 9 | N/A | 14.8 | 14.9 | 13.6 | 14.5 | 14.3 | 15.2 | 14.9 |
| 10/15/2011 | 10 | N/A | 14.9 | 15.2 | 13.7 | 14.6 | 14.4 | 15.3 | 14.9 |
| 10/15/2011 | 11 | N/A | 14.9 | 15.6 | 13.8 | 14.6 | 14.5 | 15.3 | 14.9 |
| 10/15/2011 | 12 | N/A | 15.0 | 16.0 | 14.1 | 14.7 | 14.6 | 15.3 | 15.0 |
| 10/15/2011 | 13 | N/A | 15.0 | 16.6 | 14.5 | 14.8 | 14.8 | 15.4 | 15.0 |
| 10/15/2011 | 14 | N/A | 15.1 | 16.7 | 15.0 | 15.0 | 15.1 | 15.4 | 15.1 |
| 10/15/2011 | 15 | N/A | 15.1 | 16.9 | 15.5 | 15.1 | 15.2 | 15.4 | 15.1 |
| 10/15/2011 | 16 | N/A | 15.2 | 16.8 | 15.9 | 15.2 | 15.4 | 15.4 | 15.2 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/15/2011 | 17 | N/A | 15.2 | 16.4 | 16.0 | 15.3 | 15.4 | 15.5 | 15.2 |
| 10/15/2011 | 18 | N/A | 15.2 | 15.9 | 15.7 | 15.2 | 15.3 | 15.5 | 15.2 |
| 10/15/2011 | 19 | N/A | 15.2 | 15.6 | 15.4 | 15.2 | 15.2 | 15.5 | 15.3 |
| 10/15/2011 | 20 | N/A | 15.2 | 15.4 | 15.0 | 15.1 | 15.1 | 15.5 | 15.3 |
| 10/15/2011 | 21 | N/A | 15.2 | 15.3 | 14.7 | 15.1 | 15.0 | 15.5 | 15.3 |
| 10/15/2011 | 22 | N/A | 15.1 | 15.1 | 14.4 | 15.0 | 14.9 | 15.5 | 15.2 |
| 10/15/2011 | 23 | N/A | 15.1 | 15.2 | 14.2 | 14.9 | 14.8 | 15.5 | 15.2 |
| 10/15/2011 | 24 | N/A | 15.1 | 15.1 | 14.1 | 14.9 | 14.7 | 15.5 | 15.2 |
| 10/16/2011 | 1 | N/A | 15.1 | 15.1 | 14.0 | 14.8 | 14.6 | 15.5 | 15.2 |
| 10/16/2011 | 2 | N/A | 15.1 | 15.1 | 14.0 | 14.8 | 14.6 | 15.5 | 15.2 |
| 10/16/2011 | 3 | N/A | 15.0 | 15.1 | 13.9 | 14.7 | 14.6 | 15.4 | 15.1 |
| 10/16/2011 | 4 | N/A | 15.0 | 15.1 | 13.9 | 14.7 | 14.5 | 15.4 | 15.1 |
| 10/16/2011 | 5 | N/A | 15.0 | 15.1 | 13.9 | 14.7 | 14.5 | 15.4 | 15.1 |
| 10/16/2011 | 6 | N/A | 14.9 | 14.9 | 13.8 | 14.6 | 14.5 | 15.3 | 15.0 |
| 10/16/2011 | 7 | N/A | 14.9 | 14.8 | 13.8 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/16/2011 | 8 | N/A | 14.9 | 14.9 | 13.7 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/16/2011 | 9 | N/A | 14.9 | 14.9 | 13.7 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/16/2011 | 10 | N/A | 14.9 | 15.2 | 13.7 | 14.6 | 14.4 | 15.3 | 14.9 |
| 10/16/2011 | 11 | N/A | 14.9 | 15.5 | 13.8 | 14.6 | 14.5 | 15.3 | 15.0 |
| 10/16/2011 | 12 | N/A | 15.0 | 15.9 | 14.1 | 14.7 | 14.6 | 15.4 | 15.0 |
| 10/16/2011 | 13 | N/A | 15.0 | 16.5 | 14.4 | 14.8 | 14.8 | 15.4 | 15.0 |
| 10/16/2011 | 14 | N/A | 15.1 | 16.7 | 15.0 | 15.0 | 15.0 | 15.4 | 15.1 |
| 10/16/2011 | 15 | N/A | 15.1 | 16.8 | 15.5 | 15.2 | 15.3 | 15.5 | 15.2 |
| 10/16/2011 | 16 | N/A | 15.2 | 16.6 | 15.8 | 15.3 | 15.4 | 15.5 | 15.2 |
| 10/16/2011 | 17 | N/A | 15.2 | 16.4 | 15.9 | 15.3 | 15.5 | 15.5 | 15.3 |
| 10/16/2011 | 18 | N/A | 15.3 | 16.1 | 15.7 | 15.3 | 15.4 | 15.5 | 15.3 |
| 10/16/2011 | 19 | N/A | 15.2 | 15.7 | 15.3 | 15.2 | 15.3 | 15.5 | 15.3 |
| 10/16/2011 | 20 | N/A | 15.2 | 15.6 | 15.0 | 15.2 | 15.2 | 15.5 | 15.3 |
| 10/16/2011 | 21 | N/A | 15.2 | 15.5 | 14.7 | 15.1 | 15.0 | 15.5 | 15.3 |
| 10/16/2011 | 22 | N/A | 15.2 | 15.4 | 14.4 | 15.0 | 14.9 | 15.5 | 15.3 |
| 10/16/2011 | 23 | N/A | 15.1 | 15.2 | 14.2 | 14.9 | 14.8 | 15.5 | 15.2 |
| 10/16/2011 | 24 | N/A | 15.1 | 15.1 | 14.1 | 14.9 | 14.7 | 15.5 | 15.2 |
| 10/17/2011 | 1 | N/A | 15.1 | 15.0 | 14.0 | 14.8 | 14.6 | 15.5 | 15.2 |
| 10/17/2011 | 2 | N/A | 15.1 | 15.0 | 13.9 | 14.7 | 14.6 | 15.4 | 15.2 |
| 10/17/2011 | 3 | N/A | 15.0 | 15.0 | 13.8 | 14.7 | 14.5 | 15.4 | 15.1 |
| 10/17/2011 | 4 | N/A | 15.0 | 15.0 | 13.8 | 14.7 | 14.5 | 15.4 | 15.1 |
| 10/17/2011 | 5 | N/A | 15.0 | 15.1 | 13.7 | 14.6 | 14.5 | 15.3 | 15.1 |
| 10/17/2011 | 6 | N/A | 14.9 | 15.1 | 13.7 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/17/2011 | 7 | N/A | 14.9 | 15.1 | 13.7 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/17/2011 | 8 | N/A | 14.8 | 15.0 | 13.7 | 14.5 | 14.4 | 15.2 | 14.9 |
| 10/17/2011 | 9 | N/A | 14.8 | 15.0 | 13.8 | 14.6 | 14.4 | 15.2 | 14.9 |
| 10/17/2011 | 10 | N/A | 14.8 | 14.9 | 13.9 | 14.6 | 14.4 | 15.2 | 14.9 |
| 10/17/2011 | 11 | N/A | 14.8 | 15.4 | 14.0 | 14.6 | 14.5 | 15.3 | 14.9 |
| 10/17/2011 | 12 | N/A | 14.9 | 15.8 | 14.1 | 14.7 | 14.6 | 15.3 | 14.9 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/17/2011 | 13 | N/A | 14.9 | 16.2 | 14.4 | 14.7 | 14.7 | 15.3 | 15.0 |
| 10/17/2011 | 14 | N/A | 15.0 | 16.4 | 14.9 | 14.9 | 15.0 | 15.3 | 15.0 |
| 10/17/2011 | 15 | N/A | 15.0 | 16.5 | 15.4 | 15.0 | 15.2 | 15.4 | 15.1 |
| 10/17/2011 | 16 | N/A | 15.0 | 16.4 | 15.7 | 15.1 | 15.3 | 15.4 | 15.1 |
| 10/17/2011 | 17 | N/A | 15.1 | 16.1 | 15.7 | 15.2 | 15.3 | 15.4 | 15.1 |
| 10/17/2011 | 18 | N/A | 15.1 | 15.8 | 15.5 | 15.1 | 15.2 | 15.4 | 15.2 |
| 10/17/2011 | 19 | N/A | 15.1 | 15.5 | 15.2 | 15.1 | 15.1 | 15.4 | 15.2 |
| 10/17/2011 | 20 | N/A | 15.1 | 15.3 | 14.9 | 15.0 | 15.0 | 15.4 | 15.2 |
| 10/17/2011 | 21 | N/A | 15.1 | 15.2 | 14.6 | 14.9 | 14.9 | 15.4 | 15.2 |
| 10/17/2011 | 22 | N/A | 15.0 | 15.1 | 14.4 | 14.9 | 14.8 | 15.4 | 15.1 |
| 10/17/2011 | 23 | N/A | 15.0 | 15.0 | 14.2 | 14.8 | 14.7 | 15.4 | 15.1 |
| 10/17/2011 | 24 | N/A | 15.0 | 15.0 | 14.1 | 14.8 | 14.6 | 15.4 | 15.1 |
| 10/18/2011 | 1 | N/A | 14.9 | 14.9 | 14.0 | 14.7 | 14.6 | 15.4 | 15.1 |
| 10/18/2011 | 2 | N/A | 14.9 | 14.9 | 13.9 | 14.6 | 14.5 | 15.3 | 15.0 |
| 10/18/2011 | 3 | N/A | 14.9 | 14.7 | 13.8 | 14.6 | 14.5 | 15.3 | 15.0 |
| 10/18/2011 | 4 | N/A | 14.9 | 14.8 | 13.7 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/18/2011 | 5 | N/A | 14.8 | 14.8 | 13.7 | 14.6 | 14.4 | 15.3 | 14.9 |
| 10/18/2011 | 6 | N/A | 14.8 | 14.6 | 13.6 | 14.5 | 14.3 | 15.2 | 14.9 |
| 10/18/2011 | 7 | N/A | 14.8 | 14.6 | 13.6 | 14.5 | 14.3 | 15.2 | 14.9 |
| 10/18/2011 | 8 | N/A | 14.7 | 14.6 | 13.5 | 14.5 | 14.3 | 15.2 | 14.9 |
| 10/18/2011 | 9 | N/A | 14.8 | 14.6 | 13.5 | 14.5 | 14.2 | 15.2 | 14.8 |
| 10/18/2011 | 10 | N/A | 14.8 | 14.9 | 13.6 | 14.5 | 14.3 | 15.2 | 14.8 |
| 10/18/2011 | 11 | N/A | 14.8 | 15.3 | 13.7 | 14.5 | 14.3 | 15.3 | 14.8 |
| 10/18/2011 | 12 | N/A | 14.8 | 15.8 | 14.0 | 14.6 | 14.5 | 15.3 | 14.8 |
| 10/18/2011 | 13 | N/A | 14.9 | 16.3 | 14.3 | 14.7 | 14.7 | 15.3 | 14.9 |
| 10/18/2011 | 14 | N/A | 14.9 | 16.6 | 14.8 | 14.9 | 14.9 | 15.3 | 15.0 |
| 10/18/2011 | 15 | N/A | 15.0 | 16.5 | 15.4 | 15.0 | 15.2 | 15.3 | 15.1 |
| 10/18/2011 | 16 | N/A | 15.1 | 16.3 | 15.7 | 15.2 | 15.3 | 15.4 | 15.1 |
| 10/18/2011 | 17 | N/A | 15.1 | 16.0 | 15.8 | 15.2 | 15.3 | 15.4 | 15.2 |
| 10/18/2011 | 18 | N/A | 15.1 | 15.7 | 15.6 | 15.2 | 15.3 | 15.4 | 15.2 |
| 10/18/2011 | 19 | N/A | 15.1 | 15.4 | 15.3 | 15.1 | 15.2 | 15.4 | 15.2 |
| 10/18/2011 | 20 | N/A | 15.1 | 15.2 | 15.0 | 15.0 | 15.0 | 15.4 | 15.2 |
| 10/18/2011 | 21 | N/A | 15.1 | 15.1 | 14.6 | 15.0 | 14.9 | 15.4 | 15.2 |
| 10/18/2011 | 22 | N/A | 15.1 | 15.0 | 14.4 | 14.9 | 14.8 | 15.4 | 15.2 |
| 10/18/2011 | 23 | N/A | 15.0 | 14.9 | 14.2 | 14.8 | 14.7 | 15.4 | 15.1 |
| 10/18/2011 | 24 | N/A | 15.0 | 14.9 | 14.0 | 14.8 | 14.6 | 15.4 | 15.1 |
| 10/19/2011 | 1 | N/A | 15.0 | 14.9 | 13.9 | 14.7 | 14.6 | 15.4 | 15.1 |
| 10/19/2011 | 2 | N/A | 15.0 | 14.8 | 13.8 | 14.7 | 14.5 | 15.4 | 15.1 |
| 10/19/2011 | 3 | N/A | 14.9 | 14.8 | 13.8 | 14.6 | 14.5 | 15.3 | 15.0 |
| 10/19/2011 | 4 | N/A | 14.9 | 14.8 | 13.7 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/19/2011 | 5 | N/A | 14.9 | 14.9 | 13.7 | 14.6 | 14.4 | 15.3 | 15.0 |
| 10/19/2011 | 6 | N/A | 14.9 | 14.9 | 13.7 | 14.6 | 14.4 | 15.3 | 14.9 |
| 10/19/2011 | 7 | N/A | 14.8 | 14.9 | 13.7 | 14.6 | 14.4 | 15.2 | 14.9 |
| 10/19/2011 | 8 | N/A | 14.8 | 15.1 | 13.7 | 14.5 | 14.4 | 15.2 | 14.9 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/19/2011 | 9 | N/A | 14.8 | 15.1 | 13.7 | 14.5 | 14.4 | 15.2 | 14.9 |
| 10/19/2011 | 10 | N/A | 14.8 | 15.2 | 13.8 | 14.6 | 14.4 | 15.2 | 14.9 |
| 10/19/2011 | 11 | N/A | 14.9 | 15.5 | 14.0 | 14.6 | 14.5 | 15.3 | 14.9 |
| 10/19/2011 | 12 | N/A | 14.9 | 15.9 | 14.2 | 14.7 | 14.6 | 15.3 | 14.9 |
| 10/19/2011 | 13 | N/A | 15.0 | 16.3 | 14.5 | 14.8 | 14.8 | 15.3 | 14.9 |
| 10/19/2011 | 14 | N/A | 15.0 | 16.6 | 15.0 | 14.9 | 15.0 | 15.3 | 15.0 |
| 10/19/2011 | 15 | N/A | 15.0 | 16.6 | 15.5 | 15.1 | 15.2 | 15.4 | 15.1 |
| 10/19/2011 | 16 | N/A | 15.1 | 16.4 | 15.8 | 15.2 | 15.3 | 15.4 | 15.1 |
| 10/19/2011 | 17 | N/A | 15.1 | 16.1 | 15.9 | 15.2 | 15.4 | 15.4 | 15.2 |
| 10/19/2011 | 18 | N/A | 15.1 | 15.9 | 15.7 | 15.2 | 15.3 | 15.4 | 15.2 |
| 10/19/2011 | 19 | N/A | 15.1 | 15.6 | 15.4 | 15.1 | 15.2 | 15.4 | 15.2 |
| 10/19/2011 | 20 | N/A | 15.1 | 15.6 | 15.1 | 15.1 | 15.1 | 15.4 | 15.2 |
| 10/19/2011 | 21 | N/A | 15.1 | 15.4 | 14.8 | 15.0 | 15.0 | 15.4 | 15.2 |
| 10/19/2011 | 22 | N/A | 15.1 | 15.4 | 14.6 | 14.9 | 14.9 | 15.4 | 15.1 |
| 10/19/2011 | 23 | N/A | 15.1 | 15.4 | 14.5 | 14.9 | 14.8 | 15.4 | 15.1 |
| 10/19/2011 | 24 | N/A | 15.1 | 15.3 | 14.4 | 14.9 | 14.8 | 15.4 | 15.1 |
| 10/20/2011 | 1 | N/A | 15.1 | 15.4 | 14.4 | 14.8 | 14.8 | 15.4 | 15.1 |
| 10/20/2011 | 2 | N/A | 15.0 | 15.4 | 14.4 | 14.9 | 14.7 | 15.4 | 15.1 |
| 10/20/2011 | 3 | N/A | 15.0 | 15.4 | 14.4 | 14.8 | 14.7 | 15.4 | 15.1 |
| 10/20/2011 | 4 | N/A | 15.0 | 15.3 | 14.4 | 14.8 | 14.7 | 15.4 | 15.1 |
| 10/20/2011 | 5 | N/A | 15.0 | 15.3 | 14.4 | 14.8 | 14.7 | 15.3 | 15.0 |
| 10/20/2011 | 6 | N/A | 15.0 | 15.4 | 14.3 | 14.8 | 14.7 | 15.3 | 15.0 |
| 10/20/2011 | 7 | N/A | 15.0 | 15.4 | 14.3 | 14.8 | 14.6 | 15.3 | 15.0 |
| 10/20/2011 | 8 | N/A | 14.9 | 15.4 | 14.2 | 14.7 | 14.6 | 15.3 | 15.0 |
| 10/20/2011 | 9 | N/A | 14.9 | 15.2 | 14.2 | 14.7 | 14.6 | 15.3 | 15.0 |
| 10/20/2011 | 10 | N/A | 14.9 | 15.7 | 14.3 | 14.8 | 14.6 | 15.3 | 15.0 |
| 10/20/2011 | 11 | N/A | 15.0 | 16.0 | 14.3 | 14.8 | 14.7 | 15.4 | 15.0 |
| 10/20/2011 | 12 | N/A | 15.1 | 16.2 | 14.6 | 14.9 | 14.8 | 15.4 | 15.0 |
| 10/20/2011 | 13 | N/A | 15.1 | 16.6 | 14.9 | 15.0 | 15.0 | 15.4 | 15.1 |
| 10/20/2011 | 14 | N/A | 15.1 | 17.0 | 15.3 | 15.1 | 15.2 | 15.4 | 15.1 |
| 10/20/2011 | 15 | N/A | 15.2 | 17.1 | 15.7 | 15.2 | 15.2 | 15.5 | 15.2 |
| 10/20/2011 | 16 | N/A | 15.2 | 17.0 | 15.9 | 15.2 | 15.3 | 15.5 | 15.2 |
| 10/20/2011 | 17 | N/A | 15.2 | 16.7 | 16.0 | 15.2 | 15.3 | 15.5 | 15.2 |
| 10/20/2011 | 18 | N/A | 15.2 | 16.6 | 15.9 | 15.2 | 15.3 | 15.5 | 15.2 |
| 10/20/2011 | 19 | N/A | 15.2 | 16.3 | 15.8 | 15.2 | 15.3 | 15.5 | 15.2 |
| 10/20/2011 | 20 | N/A | 15.2 | 15.9 | 15.6 | 15.2 | 15.2 | 15.5 | 15.2 |
| 10/20/2011 | 21 | N/A | 15.1 | 15.9 | 15.3 | 15.1 | 15.2 | 15.5 | 15.2 |
| 10/20/2011 | 22 | N/A | 15.1 | 15.7 | 15.1 | 15.1 | 15.1 | 15.5 | 15.2 |
| 10/20/2011 | 23 | N/A | 15.1 | 15.7 | 14.8 | 15.0 | 15.0 | 15.4 | 15.2 |
| 10/20/2011 | 24 | N/A | 15.1 | 15.5 | 14.6 | 14.9 | 14.9 | 15.4 | 15.1 |
| 10/21/2011 | 1 | N/A | 15.0 | 15.4 | 14.5 | 14.9 | 14.9 | 15.4 | 15.1 |
| 10/21/2011 | 2 | N/A | 15.0 | 15.4 | 14.3 | 14.9 | 14.8 | 15.4 | 15.1 |
| 10/21/2011 | 3 | N/A | 15.0 | 15.4 | 14.1 | 14.8 | 14.7 | 15.4 | 15.1 |
| 10/21/2011 | 4 | N/A | 14.9 | 15.3 | 14.0 | 14.8 | 14.7 | 15.4 | 15.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/21/2011 | 5 | N/A | 14.9 | 15.3 | 13.9 | 14.8 | 14.7 | 15.3 | 15.0 |
| 10/21/2011 | 6 | N/A | 14.9 | 15.2 | 13.8 | 14.7 | 14.6 | 15.3 | 15.0 |
| 10/21/2011 | 7 | N/A | 14.9 | 15.2 | 13.8 | 14.7 | 14.6 | 15.3 | 15.0 |
| 10/21/2011 | 8 | N/A | 14.9 | 15.4 | 13.8 | 14.7 | 14.6 | 15.3 | 15.0 |
| 10/21/2011 | 9 | N/A | 14.9 | 15.4 | 13.8 | 14.7 | 14.6 | 15.3 | 15.0 |
| 10/21/2011 | 10 | N/A | 14.9 | 15.6 | 13.8 | 14.7 | 14.6 | 15.3 | 14.9 |
| 10/21/2011 | 11 | N/A | 15.0 | 15.7 | 13.9 | 14.7 | 14.6 | 15.3 | 14.9 |
| 10/21/2011 | 12 | N/A | 15.0 | 16.0 | 14.0 | 14.7 | 14.7 | 15.3 | 14.9 |
| 10/21/2011 | 13 | N/A | 15.0 | 16.2 | 14.2 | 14.7 | 14.7 | 15.3 | 15.0 |
| 10/21/2011 | 14 | N/A | 15.0 | 16.3 | 14.4 | 14.8 | 14.8 | 15.3 | 15.0 |
| 10/21/2011 | 15 | N/A | 15.1 | 16.5 | 14.6 | 14.9 | 14.9 | 15.3 | 15.0 |
| 10/21/2011 | 16 | N/A | 15.1 | 16.7 | 14.8 | 14.9 | 14.9 | 15.3 | 15.1 |
| 10/21/2011 | 17 | N/A | 15.0 | 16.6 | 15.0 | 15.0 | 15.0 | 15.3 | 15.1 |
| 10/21/2011 | 18 | N/A | 15.0 | 16.4 | 15.2 | 15.0 | 15.0 | 15.3 | 15.1 |
| 10/21/2011 | 19 | N/A | 15.0 | 16.2 | 15.2 | 15.0 | 15.0 | 15.3 | 15.1 |
| 10/21/2011 | 20 | N/A | 15.0 | 15.8 | 15.1 | 14.9 | 15.0 | 15.3 | 15.0 |
| 10/21/2011 | 21 | N/A | 14.9 | 15.7 | 14.9 | 14.9 | 14.9 | 15.3 | 15.0 |
| 10/21/2011 | 22 | N/A | 14.9 | 15.6 | 14.6 | 14.8 | 14.8 | 15.3 | 15.0 |
| 10/21/2011 | 23 | N/A | 14.9 | 15.6 | 14.4 | 14.8 | 14.7 | 15.3 | 15.0 |
| 10/21/2011 | 24 | N/A | 14.8 | 15.6 | 14.2 | 14.7 | 14.7 | 15.3 | 14.9 |
| 10/22/2011 | 1 | N/A | 14.8 | 15.4 | 14.1 | 14.7 | 14.6 | 15.3 | 14.9 |
| 10/22/2011 | 2 | N/A | 14.8 | 15.3 | 13.9 | 14.6 | 14.6 | 15.2 | 14.9 |
| 10/22/2011 | 3 | N/A | 14.8 | 15.3 | 13.8 | 14.6 | 14.6 | 15.2 | 14.9 |
| 10/22/2011 | 4 | N/A | 14.7 | 15.3 | 13.7 | 14.6 | 14.5 | 15.2 | 14.9 |
| 10/22/2011 | 5 | N/A | 14.7 | 15.4 | 13.6 | 14.6 | 14.5 | 15.1 | 14.8 |
| 10/22/2011 | 6 | N/A | 14.7 | 15.2 | 13.6 | 14.5 | 14.4 | 15.1 | 14.8 |
| 10/22/2011 | 7 | N/A | 14.6 | 15.2 | 13.5 | 14.5 | 14.4 | 15.1 | 14.7 |
| 10/22/2011 | 8 | N/A | 14.6 | 15.1 | 13.4 | 14.5 | 14.4 | 15.1 | 14.7 |
| 10/22/2011 | 9 | N/A | 14.7 | 15.2 | 13.4 | 14.4 | 14.3 | 15.1 | 14.7 |
| 10/22/2011 | 10 | N/A | 14.7 | 15.4 | 13.5 | 14.5 | 14.4 | 15.1 | 14.7 |
| 10/22/2011 | 11 | N/A | 14.7 | 15.9 | 13.9 | 14.5 | 14.5 | 15.1 | 14.7 |
| 10/22/2011 | 12 | N/A | 14.8 | 16.3 | 14.1 | 14.6 | 14.6 | 15.1 | 14.7 |
| 10/22/2011 | 13 | N/A | 14.8 | 16.7 | 14.2 | 14.6 | 14.7 | 15.1 | 14.8 |
| 10/22/2011 | 14 | N/A | 14.8 | 16.7 | 14.5 | 14.7 | 14.8 | 15.2 | 14.9 |
| 10/22/2011 | 15 | N/A | 14.9 | 16.8 | 15.0 | 14.8 | 15.0 | 15.2 | 14.9 |
| 10/22/2011 | 16 | N/A | 14.9 | 16.7 | 15.5 | 14.9 | 15.0 | 15.2 | 14.9 |
| 10/22/2011 | 17 | N/A | 14.9 | 16.6 | 15.8 | 15.0 | 15.1 | 15.2 | 15.0 |
| 10/22/2011 | 18 | N/A | 14.9 | 16.4 | 15.8 | 15.0 | 15.1 | 15.2 | 15.0 |
| 10/22/2011 | 19 | N/A | 14.9 | 16.1 | 15.7 | 15.0 | 15.1 | 15.2 | 15.0 |
| 10/22/2011 | 20 | N/A | 14.9 | 16.0 | 15.5 | 15.0 | 15.0 | 15.2 | 15.0 |
| 10/22/2011 | 21 | N/A | 14.9 | 15.9 | 15.2 | 14.9 | 15.0 | 15.2 | 15.0 |
| 10/22/2011 | 22 | N/A | 14.9 | 15.7 | 15.0 | 14.9 | 14.9 | 15.2 | 15.0 |
| 10/22/2011 | 23 | N/A | 14.9 | 15.6 | 14.7 | 14.8 | 14.8 | 15.3 | 14.9 |
| 10/22/2011 | 24 | N/A | 14.8 | 15.6 | 14.5 | 14.8 | 14.7 | 15.3 | 14.9 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/23/2011 | 1 | N/A | 14.8 | 15.6 | 14.3 | 14.7 | 14.7 | 15.2 | 14.9 |
| 10/23/2011 | 2 | N/A | 14.8 | 15.6 | 14.1 | 14.7 | 14.6 | 15.2 | 14.9 |
| 10/23/2011 | 3 | N/A | 14.7 | 15.4 | 14.0 | 14.6 | 14.6 | 15.2 | 14.9 |
| 10/23/2011 | 4 | N/A | 14.7 | 15.3 | 13.9 | 14.6 | 14.5 | 15.2 | 14.8 |
| 10/23/2011 | 5 | N/A | 14.7 | 15.3 | 13.7 | 14.6 | 14.5 | 15.1 | 14.8 |
| 10/23/2011 | 6 | N/A | 14.7 | 15.3 | 13.6 | 14.5 | 14.4 | 15.1 | 14.8 |
| 10/23/2011 | 7 | N/A | 14.6 | 15.2 | 13.5 | 14.5 | 14.4 | 15.1 | 14.8 |
| 10/23/2011 | 8 | N/A | 14.6 | 15.3 | 13.4 | 14.4 | 14.3 | 15.1 | 14.7 |
| 10/23/2011 | 9 | N/A | 14.6 | 15.2 | 13.4 | 14.4 | 14.3 | 15.1 | 14.7 |
| 10/23/2011 | 10 | N/A | 14.6 | 15.4 | 13.4 | 14.4 | 14.3 | 15.1 | 14.7 |
| 10/23/2011 | 11 | N/A | 14.6 | 15.4 | 13.4 | 14.4 | 14.3 | 15.1 | 14.7 |
| 10/23/2011 | 12 | N/A | 14.7 | 15.7 | 13.5 | 14.4 | 14.4 | 15.1 | 14.7 |
| 10/23/2011 | 13 | N/A | 14.7 | 16.0 | 13.6 | 14.4 | 14.4 | 15.1 | 14.7 |
| 10/23/2011 | 14 | N/A | 14.7 | 16.2 | 13.8 | 14.5 | 14.5 | 15.1 | 14.7 |
| 10/23/2011 | 15 | N/A | 14.8 | 16.1 | 14.1 | 14.6 | 14.5 | 15.1 | 14.7 |
| 10/23/2011 | 16 | N/A | 14.8 | 15.9 | 14.4 | 14.6 | 14.6 | 15.1 | 14.8 |
| 10/23/2011 | 17 | N/A | 14.7 | 15.7 | 14.6 | 14.7 | 14.6 | 15.1 | 14.8 |
| 10/23/2011 | 18 | N/A | 14.7 | 15.5 | 14.7 | 14.7 | 14.6 | 15.1 | 14.8 |
| 10/23/2011 | 19 | N/A | 14.7 | 15.3 | 14.7 | 14.7 | 14.6 | 15.0 | 14.8 |
| 10/23/2011 | 20 | N/A | 14.6 | 15.2 | 14.5 | 14.6 | 14.6 | 15.0 | 14.8 |
| 10/23/2011 | 21 | N/A | 14.6 | 15.0 | 14.3 | 14.6 | 14.5 | 15.0 | 14.7 |
| 10/23/2011 | 22 | N/A | 14.6 | 14.9 | 14.0 | 14.5 | 14.5 | 15.0 | 14.7 |
| 10/23/2011 | 23 | N/A | 14.5 | 14.8 | 13.7 | 14.5 | 14.4 | 15.0 | 14.7 |
| 10/23/2011 | 24 | N/A | 14.5 | 14.6 | 13.5 | 14.4 | 14.3 | 15.0 | 14.7 |
| 10/24/2011 | 1 | N/A | 14.5 | 14.6 | 13.3 | 14.3 | 14.2 | 15.0 | 14.6 |
| 10/24/2011 | 2 | N/A | 14.4 | 14.4 | 13.1 | 14.3 | 14.1 | 14.9 | 14.6 |
| 10/24/2011 | 3 | N/A | 14.4 | 14.5 | 12.9 | 14.2 | 14.1 | 14.9 | 14.6 |
| 10/24/2011 | 4 | N/A | 14.4 | 14.4 | 12.8 | 14.2 | 14.1 | 14.9 | 14.6 |
| 10/24/2011 | 5 | N/A | 14.3 | 14.3 | 12.7 | 14.1 | 14.0 | 14.8 | 14.5 |
| 10/24/2011 | 6 | N/A | 14.3 | 14.3 | 12.7 | 14.1 | 14.0 | 14.8 | 14.5 |
| 10/24/2011 | 7 | N/A | 14.3 | 14.2 | 12.6 | 14.1 | 13.9 | 14.8 | 14.5 |
| 10/24/2011 | 8 | N/A | 14.2 | 14.1 | 12.5 | 14.0 | 13.9 | 14.8 | 14.4 |
| 10/24/2011 | 9 | N/A | 14.2 | 14.4 | 12.5 | 14.0 | 13.8 | 14.8 | 14.4 |
| 10/24/2011 | 10 | N/A | 14.2 | 14.5 | 12.6 | 14.0 | 13.9 | 14.8 | 14.3 |
| 10/24/2011 | 11 | N/A | 14.3 | 15.0 | 12.8 | 14.1 | 13.9 | 14.8 | 14.4 |
| 10/24/2011 | 12 | N/A | 14.3 | 15.3 | 12.9 | 14.1 | 14.0 | 14.8 | 14.4 |
| 10/24/2011 | 13 | N/A | 14.3 | 15.7 | 13.0 | 14.1 | 14.1 | 14.8 | 14.4 |
| 10/24/2011 | 14 | N/A | 14.4 | 16.0 | 13.2 | 14.2 | 14.2 | 14.8 | 14.5 |
| 10/24/2011 | 15 | N/A | 14.4 | 15.9 | 13.8 | 14.3 | 14.3 | 14.9 | 14.5 |
| 10/24/2011 | 16 | N/A | 14.4 | 15.8 | 14.2 | 14.4 | 14.4 | 14.9 | 14.6 |
| 10/24/2011 | 17 | N/A | 14.4 | 15.3 | 14.5 | 14.4 | 14.4 | 14.8 | 14.6 |
| 10/24/2011 | 18 | N/A | 14.4 | 15.1 | 14.5 | 14.4 | 14.4 | 14.8 | 14.6 |
| 10/24/2011 | 19 | N/A | 14.4 | 14.8 | 14.3 | 14.4 | 14.4 | 14.8 | 14.6 |
| 10/24/2011 | 20 | N/A | 14.4 | 14.6 | 14.0 | 14.3 | 14.3 | 14.8 | 14.5 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/24/2011 | 21 | N/A | 14.3 | 14.3 | 13.7 | 14.3 | 14.2 | 14.8 | 14.5 |
| 10/24/2011 | 22 | N/A | 14.3 | 14.3 | 13.5 | 14.2 | 14.1 | 14.8 | 14.4 |
| 10/24/2011 | 23 | N/A | 14.2 | 14.3 | 13.2 | 14.1 | 14.0 | 14.8 | 14.4 |
| 10/24/2011 | 24 | N/A | 14.2 | 14.2 | 13.0 | 14.1 | 14.0 | 14.7 | 14.4 |
| 10/25/2011 | 1 | N/A | 14.2 | 14.2 | 12.8 | 14.1 | 13.9 | 14.7 | 14.4 |
| 10/25/2011 | 2 | N/A | 14.1 | 14.0 | 12.6 | 14.0 | 13.8 | 14.7 | 14.3 |
| 10/25/2011 | 3 | N/A | 14.1 | 14.0 | 12.5 | 13.9 | 13.8 | 14.6 | 14.3 |
| 10/25/2011 | 4 | N/A | 14.0 | 13.9 | 12.4 | 13.9 | 13.7 | 14.6 | 14.3 |
| 10/25/2011 | 5 | N/A | 14.0 | 14.0 | 12.3 | 13.8 | 13.6 | 14.6 | 14.2 |
| 10/25/2011 | 6 | N/A | 14.0 | 13.7 | 12.2 | 13.8 | 13.6 | 14.5 | 14.2 |
| 10/25/2011 | 7 | N/A | 13.9 | 13.8 | 12.1 | 13.7 | 13.5 | 14.5 | 14.1 |
| 10/25/2011 | 8 | N/A | 13.9 | 13.8 | 12.0 | 13.7 | 13.5 | 14.5 | 14.1 |
| 10/25/2011 | 9 | N/A | 13.9 | 13.8 | 11.9 | 13.7 | 13.5 | 14.5 | 14.1 |
| 10/25/2011 | 10 | N/A | 13.9 | 14.1 | 12.1 | 13.6 | 13.5 | 14.5 | 14.1 |
| 10/25/2011 | 11 | N/A | 13.9 | 14.4 | 12.3 | 13.7 | 13.6 | 14.5 | 14.1 |
| 10/25/2011 | 12 | N/A | 14.0 | 14.7 | 12.5 | 13.7 | 13.6 | 14.5 | 14.1 |
| 10/25/2011 | 13 | N/A | 14.0 | 15.0 | 12.5 | 13.8 | 13.7 | 14.5 | 14.1 |
| 10/25/2011 | 14 | N/A | 14.1 | 15.3 | 12.7 | 13.9 | 13.8 | 14.5 | 14.2 |
| 10/25/2011 | 15 | N/A | 14.1 | 15.4 | 13.2 | 14.0 | 14.0 | 14.6 | 14.2 |
| 10/25/2011 | 16 | N/A | 14.1 | 15.2 | 13.7 | 14.1 | 14.1 | 14.6 | 14.3 |
| 10/25/2011 | 17 | N/A | 14.1 | 15.0 | 14.0 | 14.1 | 14.1 | 14.6 | 14.3 |
| 10/25/2011 | 18 | N/A | 14.1 | 14.8 | 14.1 | 14.1 | 14.1 | 14.5 | 14.3 |
| 10/25/2011 | 19 | N/A | 14.1 | 14.4 | 13.9 | 14.1 | 14.1 | 14.5 | 14.2 |
| 10/25/2011 | 20 | N/A | 14.0 | 14.2 | 13.6 | 14.0 | 14.0 | 14.5 | 14.2 |
| 10/25/2011 | 21 | N/A | 14.0 | 14.1 | 13.3 | 13.9 | 13.9 | 14.5 | 14.2 |
| 10/25/2011 | 22 | N/A | 14.0 | 13.9 | 12.9 | 13.9 | 13.8 | 14.5 | 14.1 |
| 10/25/2011 | 23 | N/A | 13.9 | 13.8 | 12.6 | 13.8 | 13.7 | 14.5 | 14.1 |
| 10/25/2011 | 24 | N/A | 13.9 | 13.8 | 12.4 | 13.7 | 13.6 | 14.5 | 14.1 |
| 10/26/2011 | 1 | N/A | 13.8 | 13.5 | 12.1 | 13.7 | 13.5 | 14.4 | 14.1 |
| 10/26/2011 | 2 | N/A | 13.8 | 13.7 | 12.0 | 13.6 | 13.4 | 14.4 | 14.1 |
| 10/26/2011 | 3 | N/A | 13.8 | 13.7 | 11.9 | 13.6 | 13.4 | 14.4 | 14.0 |
| 10/26/2011 | 4 | N/A | 13.7 | 13.4 | 11.8 | 13.5 | 13.4 | 14.3 | 14.0 |
| 10/26/2011 | 5 | N/A | 13.7 | 13.5 | 11.7 | 13.5 | 13.3 | 14.3 | 13.9 |
| 10/26/2011 | 6 | N/A | 13.7 | 13.4 | 11.6 | 13.4 | 13.2 | 14.2 | 13.9 |
| 10/26/2011 | 7 | N/A | 13.6 | 13.3 | 11.5 | 13.4 | 13.2 | 14.2 | 13.8 |
| 10/26/2011 | 8 | N/A | 13.6 | 13.3 | 11.5 | 13.3 | 13.1 | 14.2 | 13.8 |
| 10/26/2011 | 9 | N/A | 13.6 | 13.6 | 11.5 | 13.3 | 13.1 | 14.2 | 13.7 |
| 10/26/2011 | 10 | N/A | 13.6 | 13.8 | 11.6 | 13.3 | 13.1 | 14.1 | 13.7 |
| 10/26/2011 | 11 | N/A | 13.6 | 13.9 | 11.6 | 13.3 | 13.1 | 14.1 | 13.6 |
| 10/26/2011 | 12 | N/A | 13.6 | 14.1 | 11.8 | 13.3 | 13.1 | 14.1 | 13.6 |
| 10/26/2011 | 13 | N/A | 13.6 | 14.2 | 12.0 | 13.3 | 13.1 | 14.1 | 13.6 |
| 10/26/2011 | 14 | N/A | 13.6 | 14.1 | 12.1 | 13.3 | 13.2 | 14.0 | 13.6 |
| 10/26/2011 | 15 | N/A | 13.6 | 14.2 | 12.3 | 13.3 | 13.2 | 14.0 | 13.6 |
| 10/26/2011 | 16 | N/A | 13.6 | 14.4 | 12.5 | 13.4 | 13.3 | 14.0 | 13.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/26/2011 | 17 | N/A | 13.5 | 14.2 | 12.6 | 13.4 | 13.3 | 14.0 | 13.6 |
| 10/26/2011 | 18 | N/A | 13.5 | 14.1 | 12.6 | 13.4 | 13.3 | 13.9 | 13.6 |
| 10/26/2011 | 19 | N/A | 13.4 | 13.9 | 12.6 | 13.4 | 13.3 | 13.9 | 13.6 |
| 10/26/2011 | 20 | N/A | 13.4 | 14.0 | 12.5 | 13.3 | 13.2 | 13.9 | 13.6 |
| 10/26/2011 | 21 | N/A | 13.4 | 13.8 | 12.3 | 13.2 | 13.1 | 13.9 | 13.5 |
| 10/26/2011 | 22 | N/A | 13.3 | 13.7 | 12.2 | 13.2 | 13.1 | 13.9 | 13.5 |
| 10/26/2011 | 23 | N/A | 13.3 | 13.6 | 12.0 | 13.2 | 13.0 | 13.8 | 13.5 |
| 10/26/2011 | 24 | N/A | 13.3 | 13.5 | 11.9 | 13.1 | 13.0 | 13.8 | 13.4 |
| 10/27/2011 | 1 | N/A | 13.2 | 13.4 | 11.7 | 13.1 | 12.9 | 13.8 | 13.4 |
| 10/27/2011 | 2 | N/A | 13.2 | 13.4 | 11.6 | 13.0 | 12.8 | 13.7 | 13.4 |
| 10/27/2011 | 3 | N/A | 13.1 | 13.5 | 11.5 | 13.0 | 12.8 | 13.7 | 13.4 |
| 10/27/2011 | 4 | N/A | 13.1 | 13.3 | 11.4 | 12.9 | 12.8 | 13.7 | 13.3 |
| 10/27/2011 | 5 | N/A | 13.0 | 13.3 | 11.3 | 12.9 | 12.7 | 13.6 | 13.3 |
| 10/27/2011 | 6 | N/A | 13.0 | 13.4 | 11.2 | 12.8 | 12.6 | 13.6 | 13.2 |
| 10/27/2011 | 7 | N/A | 13.0 | 13.0 | 11.1 | 12.8 | 12.6 | 13.6 | 13.2 |
| 10/27/2011 | 8 | N/A | 12.9 | 13.1 | 11.0 | 12.7 | 12.5 | 13.5 | 13.1 |
| 10/27/2011 | 9 | N/A | 12.9 | 13.0 | 11.0 | 12.7 | 12.5 | 13.5 | 13.1 |
| 10/27/2011 | 10 | N/A | 12.9 | 13.4 | 11.2 | 12.7 | 12.5 | 13.6 | 13.1 |
| 10/27/2011 | 11 | N/A | 12.9 | 13.5 | 11.4 | 12.7 | 12.6 | 13.6 | 13.1 |
| 10/27/2011 | 12 | N/A | 13.0 | 14.0 | 11.5 | 12.7 | 12.6 | 13.6 | 13.1 |
| 10/27/2011 | 13 | N/A | 13.0 | 14.3 | 11.6 | 12.8 | 12.8 | 13.6 | 13.2 |
| 10/27/2011 | 14 | N/A | 13.1 | 14.6 | 11.8 | 12.9 | 12.9 | 13.6 | 13.2 |
| 10/27/2011 | 15 | N/A | 13.2 | 14.7 | 12.2 | 13.1 | 13.0 | 13.7 | 13.3 |
| 10/27/2011 | 16 | N/A | 13.2 | 14.6 | 12.7 | 13.2 | 13.1 | 13.7 | 13.4 |
| 10/27/2011 | 17 | N/A | 13.2 | 14.3 | 13.0 | 13.2 | 13.2 | 13.7 | 13.4 |
| 10/27/2011 | 18 | N/A | 13.2 | 14.1 | 13.1 | 13.3 | 13.2 | 13.7 | 13.4 |
| 10/27/2011 | 19 | N/A | 13.2 | 13.8 | 13.0 | 13.3 | 13.2 | 13.7 | 13.4 |
| 10/27/2011 | 20 | N/A | 13.2 | 13.6 | 12.8 | 13.2 | 13.2 | 13.7 | 13.4 |
| 10/27/2011 | 21 | N/A | 13.2 | 13.3 | 12.5 | 13.2 | 13.1 | 13.7 | 13.4 |
| 10/27/2011 | 22 | N/A | 13.2 | 13.4 | 12.3 | 13.1 | 13.0 | 13.7 | 13.4 |
| 10/27/2011 | 23 | N/A | 13.2 | 13.3 | 12.0 | 13.1 | 13.0 | 13.8 | 13.4 |
| 10/27/2011 | 24 | N/A | 13.2 | 13.4 | 11.8 | 13.1 | 12.9 | 13.8 | 13.4 |
| 10/28/2011 | 1 | N/A | 13.2 | 13.3 | 11.6 | 13.0 | 12.8 | 13.7 | 13.4 |
| 10/28/2011 | 2 | N/A | 13.2 | 13.3 | 11.5 | 13.0 | 12.8 | 13.7 | 13.4 |
| 10/28/2011 | 3 | N/A | 13.1 | 13.2 | 11.4 | 12.9 | 12.8 | 13.7 | 13.3 |
| 10/28/2011 | 4 | N/A | 13.1 | 13.1 | 11.4 | 12.9 | 12.8 | 13.6 | 13.3 |
| 10/28/2011 | 5 | N/A | 13.1 | 13.1 | 11.3 | 12.9 | 12.7 | 13.6 | 13.3 |
| 10/28/2011 | 6 | N/A | 13.1 | 13.2 | 11.3 | 12.8 | 12.7 | 13.6 | 13.2 |
| 10/28/2011 | 7 | N/A | 13.0 | 13.1 | 11.3 | 12.8 | 12.6 | 13.6 | 13.2 |
| 10/28/2011 | 8 | N/A | 13.0 | 13.2 | 11.3 | 12.8 | 12.6 | 13.5 | 13.2 |
| 10/28/2011 | 9 | N/A | 13.0 | 13.2 | 11.3 | 12.8 | 12.6 | 13.5 | 13.1 |
| 10/28/2011 | 10 | N/A | 13.0 | 13.4 | 11.4 | 12.8 | 12.6 | 13.5 | 13.1 |
| 10/28/2011 | 11 | N/A | 13.0 | 13.5 | 11.7 | 12.8 | 12.7 | 13.5 | 13.1 |
| 10/28/2011 | 12 | N/A | 13.0 | 13.7 | 11.7 | 12.8 | 12.7 | 13.5 | 13.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/28/2011 | 13 | N/A | 13.1 | 14.3 | 11.8 | 12.8 | 12.8 | 13.5 | 13.1 |
| 10/28/2011 | 14 | N/A | 13.1 | 14.2 | 12.0 | 12.8 | 12.8 | 13.5 | 13.1 |
| 10/28/2011 | 15 | N/A | 13.0 | 14.4 | 12.3 | 12.9 | 12.9 | 13.5 | 13.1 |
| 10/28/2011 | 16 | N/A | 13.1 | 14.3 | 12.5 | 12.9 | 12.9 | 13.5 | 13.1 |
| 10/28/2011 | 17 | N/A | 13.0 | 14.2 | 12.8 | 13.0 | 12.9 | 13.5 | 13.2 |
| 10/28/2011 | 18 | N/A | 13.0 | 14.0 | 12.9 | 13.0 | 13.0 | 13.5 | 13.2 |
| 10/28/2011 | 19 | N/A | 13.1 | 13.8 | 12.8 | 13.0 | 13.0 | 13.5 | 13.2 |
| 10/28/2011 | 20 | N/A | 13.1 | 13.6 | 12.7 | 13.1 | 13.0 | 13.5 | 13.2 |
| 10/28/2011 | 21 | N/A | 13.1 | 13.5 | 12.5 | 13.0 | 12.9 | 13.5 | 13.3 |
| 10/28/2011 | 22 | N/A | 13.1 | 13.4 | 12.2 | 13.0 | 12.9 | 13.5 | 13.2 |
| 10/28/2011 | 23 | N/A | 13.0 | 13.4 | 12.0 | 12.9 | 12.8 | 13.5 | 13.2 |
| 10/28/2011 | 24 | N/A | 13.0 | 13.3 | 11.9 | 12.8 | 12.7 | 13.5 | 13.1 |
| 10/29/2011 | 1 | N/A | 12.9 | 13.2 | 11.7 | 12.8 | 12.6 | 13.5 | 13.1 |
| 10/29/2011 | 2 | N/A | 12.9 | 13.2 | 11.6 | 12.7 | 12.6 | 13.5 | 13.0 |
| 10/29/2011 | 3 | N/A | 12.9 | 13.2 | 11.5 | 12.7 | 12.6 | 13.4 | 13.0 |
| 10/29/2011 | 4 | N/A | 12.8 | 13.1 | 11.5 | 12.7 | 12.5 | 13.4 | 13.0 |
| 10/29/2011 | 5 | N/A | 12.8 | 13.1 | 11.4 | 12.7 | 12.5 | 13.4 | 13.0 |
| 10/29/2011 | 6 | N/A | 12.8 | 13.1 | 11.3 | 12.6 | 12.5 | 13.4 | 13.0 |
| 10/29/2011 | 7 | N/A | 12.8 | 13.0 | 11.3 | 12.6 | 12.5 | 13.3 | 13.0 |
| 10/29/2011 | 8 | N/A | 12.7 | 12.9 | 11.2 | 12.6 | 12.4 | 13.3 | 12.9 |
| 10/29/2011 | 9 | N/A | 12.7 | 13.0 | 11.2 | 12.5 | 12.4 | 13.4 | 12.9 |
| 10/29/2011 | 10 | N/A | 12.8 | 13.2 | 11.3 | 12.5 | 12.4 | 13.4 | 12.9 |
| 10/29/2011 | 11 | N/A | 12.8 | 13.6 | 11.6 | 12.6 | 12.5 | 13.4 | 12.9 |
| 10/29/2011 | 12 | N/A | 12.8 | 13.9 | 11.9 | 12.6 | 12.6 | 13.4 | 12.9 |
| 10/29/2011 | 13 | N/A | 12.8 | 14.3 | 11.8 | 12.7 | 12.7 | 13.5 | 13.0 |
| 10/29/2011 | 14 | N/A | 12.9 | 14.6 | 11.8 | 12.8 | 12.8 | 13.5 | 13.1 |
| 10/29/2011 | 15 | N/A | 13.0 | 14.7 | 12.2 | 12.9 | 12.9 | 13.5 | 13.2 |
| 10/29/2011 | 16 | N/A | 13.1 | 14.5 | 12.8 | 13.1 | 13.0 | 13.5 | 13.3 |
| 10/29/2011 | 17 | N/A | 13.2 | 14.3 | 13.1 | 13.2 | 13.1 | 13.6 | 13.3 |
| 10/29/2011 | 18 | N/A | 13.2 | 14.0 | 13.2 | 13.2 | 13.2 | 13.6 | 13.3 |
| 10/29/2011 | 19 | N/A | 13.2 | 13.8 | 13.1 | 13.2 | 13.2 | 13.6 | 13.4 |
| 10/29/2011 | 20 | N/A | 13.2 | 13.5 | 12.9 | 13.2 | 13.2 | 13.6 | 13.4 |
| 10/29/2011 | 21 | N/A | 13.2 | 13.4 | 12.7 | 13.1 | 13.1 | 13.6 | 13.3 |
| 10/29/2011 | 22 | N/A | 13.2 | 13.3 | 12.5 | 13.1 | 13.0 | 13.7 | 13.3 |
| 10/29/2011 | 23 | N/A | 13.2 | 13.2 | 12.3 | 13.1 | 13.0 | 13.7 | 13.3 |
| 10/29/2011 | 24 | N/A | 13.2 | 13.2 | 12.1 | 13.0 | 12.9 | 13.7 | 13.3 |
| 10/30/2011 | 1 | N/A | 13.1 | 13.3 | 12.0 | 13.0 | 12.9 | 13.7 | 13.3 |
| 10/30/2011 | 2 | N/A | 13.1 | 13.3 | 11.9 | 13.0 | 12.9 | 13.6 | 13.3 |
| 10/30/2011 | 3 | N/A | 13.1 | 13.2 | 11.8 | 12.9 | 12.8 | 13.6 | 13.3 |
| 10/30/2011 | 4 | N/A | 13.1 | 13.1 | 11.7 | 12.9 | 12.8 | 13.6 | 13.2 |
| 10/30/2011 | 5 | N/A | 13.0 | 13.1 | 11.6 | 12.9 | 12.8 | 13.6 | 13.2 |
| 10/30/2011 | 6 | N/A | 13.0 | 13.1 | 11.6 | 12.8 | 12.7 | 13.5 | 13.2 |
| 10/30/2011 | 7 | N/A | 13.0 | 12.9 | 11.5 | 12.8 | 12.7 | 13.5 | 13.1 |
| 10/30/2011 | 8 | N/A | 13.0 | 12.9 | 11.4 | 12.8 | 12.6 | 13.5 | 13.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 10/30/2011 | 9 | N/A | 12.9 | 12.8 | 11.4 | 12.7 | 12.6 | 13.5 | 13.0 |
| 10/30/2011 | 10 | N/A | 13.0 | 13.0 | 11.6 | 12.7 | 12.6 | 13.5 | 13.0 |
| 10/30/2011 | 11 | N/A | 13.0 | 13.3 | 11.7 | 12.7 | 12.6 | 13.5 | 13.0 |
| 10/30/2011 | 12 | N/A | 13.0 | 13.6 | 11.9 | 12.8 | 12.7 | 13.5 | 13.0 |
| 10/30/2011 | 13 | N/A | 13.0 | 14.0 | 12.1 | 12.8 | 12.8 | 13.5 | 13.1 |
| 10/30/2011 | 14 | N/A | 13.0 | 14.3 | 12.1 | 12.9 | 12.9 | 13.5 | 13.1 |
| 10/30/2011 | 15 | N/A | 13.1 | 14.4 | 12.4 | 13.0 | 13.0 | 13.5 | 13.2 |
| 10/30/2011 | 16 | N/A | 13.1 | 14.3 | 12.8 | 13.1 | 13.0 | 13.5 | 13.2 |
| 10/30/2011 | 17 | N/A | 13.1 | 13.8 | 13.2 | 13.1 | 13.1 | 13.5 | 13.2 |
| 10/30/2011 | 18 | N/A | 13.1 | 13.6 | 13.3 | 13.2 | 13.2 | 13.5 | 13.3 |
| 10/30/2011 | 19 | N/A | 13.2 | 13.4 | 13.2 | 13.2 | 13.2 | 13.5 | 13.3 |
| 10/30/2011 | 20 | N/A | 13.1 | 13.2 | 13.0 | 13.1 | 13.1 | 13.6 | 13.3 |
| 10/30/2011 | 21 | N/A | 13.1 | 13.0 | 12.7 | 13.1 | 13.0 | 13.6 | 13.3 |
| 10/30/2011 | 22 | N/A | 13.1 | 13.0 | 12.5 | 13.0 | 13.0 | 13.6 | 13.2 |
| 10/30/2011 | 23 | N/A | 13.1 | 13.0 | 12.3 | 13.0 | 12.9 | 13.6 | 13.2 |
| 10/30/2011 | 24 | N/A | 13.1 | 12.9 | 12.1 | 12.9 | 12.9 | 13.6 | 13.2 |
| 10/31/2011 | 1 | N/A | 13.1 | 12.9 | 12.1 | 12.9 | 12.8 | 13.5 | 13.2 |
| 10/31/2011 | 2 | N/A | 13.0 | 12.8 | 11.9 | 12.9 | 12.7 | 13.5 | 13.1 |
| 10/31/2011 | 3 | N/A | 13.0 | 12.7 | 11.8 | 12.8 | 12.7 | 13.4 | 13.1 |
| 10/31/2011 | 4 | N/A | 13.0 | 12.8 | 11.7 | 12.8 | 12.6 | 13.4 | 13.1 |
| 10/31/2011 | 5 | N/A | 12.9 | 12.7 | 11.6 | 12.7 | 12.6 | 13.4 | 13.0 |
| 10/31/2011 | 6 | N/A | 12.9 | 12.6 | 11.5 | 12.7 | 12.5 | 13.3 | 13.0 |
| 10/31/2011 | 7 | N/A | 12.8 | 12.6 | 11.4 | 12.6 | 12.5 | 13.3 | 12.9 |
| 10/31/2011 | 8 | N/A | 12.8 | 12.6 | 11.4 | 12.6 | 12.4 | 13.3 | 12.9 |
| 10/31/2011 | 9 | N/A | 12.8 | 12.6 | 11.3 | 12.6 | 12.4 | 13.4 | 12.9 |
| 10/31/2011 | 10 | N/A | 12.8 | 12.8 | 11.4 | 12.7 | 12.5 | 13.4 | 13.0 |
| 10/31/2011 | 11 | N/A | 12.9 | 13.1 | 11.7 | 12.7 | 12.6 | 13.4 | 13.0 |
| 10/31/2011 | 12 | N/A | 13.0 | 13.5 | 11.9 | 12.8 | 12.7 | 13.5 | 13.1 |
| 10/31/2011 | 13 | N/A | 13.1 | 13.9 | 11.9 | 12.8 | 12.8 | 13.5 | 13.1 |
| 10/31/2011 | 14 | N/A | 13.1 | 13.9 | 12.0 | 12.9 | 12.8 | 13.5 | 13.2 |
| 10/31/2011 | 15 | N/A | 13.1 | 14.0 | 12.4 | 13.0 | 13.0 | 13.6 | 13.2 |
| 10/31/2011 | 16 | N/A | 13.1 | 13.7 | 12.6 | 13.1 | 13.0 | 13.6 | 13.3 |
| 10/31/2011 | 17 | N/A | 13.1 | 13.4 | 12.7 | 13.0 | 13.0 | 13.5 | 13.2 |
| 10/31/2011 | 18 | N/A | 13.1 | 13.2 | 12.6 | 13.0 | 12.9 | 13.5 | 13.2 |
| 10/31/2011 | 19 | N/A | 13.0 | 13.0 | 12.5 | 13.0 | 12.9 | 13.5 | 13.2 |
| 10/31/2011 | 20 | N/A | 13.0 | 12.8 | 12.2 | 12.9 | 12.8 | 13.5 | 13.1 |
| 10/31/2011 | 21 | N/A | 13.0 | 12.8 | 12.0 | 12.8 | 12.7 | 13.4 | 13.1 |
| 10/31/2011 | 22 | N/A | 12.9 | 12.7 | 11.9 | 12.8 | 12.7 | 13.4 | 13.0 |
| 10/31/2011 | 23 | N/A | 12.9 | 12.6 | 11.7 | 12.7 | 12.6 | 13.4 | 13.0 |
| 10/31/2011 | 24 | N/A | 12.8 | 12.5 | 11.6 | 12.7 | 12.5 | 13.4 | 13.0 |
| 11/1/2011 | 1 | N/A | 12.8 | 12.6 | 11.4 | 12.6 | 12.5 | 13.3 | 12.9 |
| 11/1/2011 | 2 | N/A | 12.8 | 12.5 | 11.3 | 12.6 | 12.4 | 13.3 | 12.9 |
| 11/1/2011 | 3 | N/A | 12.8 | 12.4 | 11.3 | 12.6 | 12.4 | 13.3 | 12.9 |
| 11/1/2011 | 4 | N/A | 12.7 | 12.3 | 11.2 | 12.6 | 12.4 | 13.3 | 12.9 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/1/2011 | 5 | N/A | 12.7 | 12.2 | 11.1 | 12.6 | 12.3 | 13.2 | 12.9 |
| 11/1/2011 | 6 | N/A | 12.7 | 12.1 | 11.0 | 12.5 | 12.3 | 13.2 | 12.8 |
| 11/1/2011 | 7 | N/A | 12.6 | 12.2 | 10.9 | 12.4 | 12.2 | 13.2 | 12.8 |
| 11/1/2011 | 8 | N/A | 12.6 | 12.1 | 10.8 | 12.4 | 12.2 | 13.2 | 12.7 |
| 11/1/2011 | 9 | N/A | 12.5 | 11.8 | 10.8 | 12.3 | 12.1 | 13.2 | 12.7 |
| 11/1/2011 | 10 | N/A | 12.5 | 12.2 | 10.9 | 12.3 | 12.1 | 13.2 | 12.6 |
| 11/1/2011 | 11 | N/A | 12.5 | 12.8 | 11.1 | 12.3 | 12.1 | 13.2 | 12.6 |
| 11/1/2011 | 12 | N/A | 12.5 | 13.2 | 11.3 | 12.3 | 12.2 | 13.2 | 12.6 |
| 11/1/2011 | 13 | N/A | 12.6 | 13.8 | 11.3 | 12.4 | 12.3 | 13.2 | 12.7 |
| 11/1/2011 | 14 | N/A | 12.6 | 14.1 | 11.3 | 12.5 | 12.4 | 13.2 | 12.8 |
| 11/1/2011 | 15 | N/A | 12.7 | 14.2 | 11.8 | 12.6 | 12.6 | 13.2 | 12.9 |
| 11/1/2011 | 16 | N/A | 12.8 | 14.0 | 12.3 | 12.8 | 12.7 | 13.2 | 12.9 |
| 11/1/2011 | 17 | N/A | 12.8 | 13.7 | 12.6 | 12.8 | 12.8 | 13.2 | 12.9 |
| 11/1/2011 | 18 | N/A | 12.8 | 13.5 | 12.6 | 12.8 | 12.8 | 13.2 | 13.0 |
| 11/1/2011 | 19 | N/A | 12.8 | 13.1 | 12.4 | 12.8 | 12.8 | 13.3 | 13.0 |
| 11/1/2011 | 20 | N/A | 12.8 | 13.0 | 12.2 | 12.8 | 12.7 | 13.3 | 12.9 |
| 11/1/2011 | 21 | N/A | 12.8 | 12.8 | 11.9 | 12.7 | 12.6 | 13.3 | 12.9 |
| 11/1/2011 | 22 | N/A | 12.8 | 12.8 | 11.6 | 12.6 | 12.5 | 13.3 | 12.9 |
| 11/1/2011 | 23 | N/A | 12.7 | 12.5 | 11.4 | 12.6 | 12.5 | 13.3 | 12.9 |
| 11/1/2011 | 24 | N/A | 12.7 | 12.5 | 11.2 | 12.5 | 12.4 | 13.3 | 12.9 |
| 11/2/2011 | 1 | N/A | 12.7 | 12.4 | 11.1 | 12.5 | 12.3 | 13.2 | 12.9 |
| 11/2/2011 | 2 | N/A | 12.7 | 12.4 | 11.0 | 12.5 | 12.3 | 13.2 | 12.8 |
| 11/2/2011 | 3 | N/A | 12.6 | 12.6 | 10.9 | 12.4 | 12.3 | 13.2 | 12.8 |
| 11/2/2011 | 4 | N/A | 12.6 | 12.4 | 10.9 | 12.4 | 12.2 | 13.1 | 12.8 |
| 11/2/2011 | 5 | N/A | 12.6 | 12.2 | 10.8 | 12.4 | 12.2 | 13.1 | 12.8 |
| 11/2/2011 | 6 | N/A | 12.5 | 12.3 | 10.7 | 12.3 | 12.1 | 13.1 | 12.7 |
| 11/2/2011 | 7 | N/A | 12.5 | 12.2 | 10.6 | 12.3 | 12.1 | 13.0 | 12.6 |
| 11/2/2011 | 8 | N/A | 12.4 | 12.0 | 10.6 | 12.2 | 12.0 | 13.0 | 12.6 |
| 11/2/2011 | 9 | N/A | 12.4 | 12.0 | 10.5 | 12.1 | 12.0 | 13.0 | 12.6 |
| 11/2/2011 | 10 | N/A | 12.4 | 12.3 | 10.6 | 12.1 | 12.0 | 13.0 | 12.5 |
| 11/2/2011 | 11 | N/A | 12.3 | 12.5 | 10.8 | 12.1 | 12.0 | 13.0 | 12.5 |
| 11/2/2011 | 12 | N/A | 12.3 | 12.7 | 10.9 | 12.1 | 12.0 | 13.0 | 12.5 |
| 11/2/2011 | 13 | N/A | 12.4 | 13.0 | 10.9 | 12.2 | 12.1 | 13.0 | 12.5 |
| 11/2/2011 | 14 | N/A | 12.4 | 13.3 | 10.9 | 12.2 | 12.2 | 12.9 | 12.5 |
| 11/2/2011 | 15 | N/A | 12.5 | 13.6 | 11.3 | 12.3 | 12.2 | 12.9 | 12.6 |
| 11/2/2011 | 16 | N/A | 12.5 | 13.5 | 11.7 | 12.4 | 12.3 | 12.9 | 12.6 |
| 11/2/2011 | 17 | N/A | 12.5 | 13.4 | 12.0 | 12.4 | 12.3 | 12.9 | 12.6 |
| 11/2/2011 | 18 | N/A | 12.5 | 13.2 | 12.1 | 12.4 | 12.4 | 12.9 | 12.6 |
| 11/2/2011 | 19 | N/A | 12.5 | 13.0 | 12.0 | 12.4 | 12.4 | 13.0 | 12.6 |
| 11/2/2011 | 20 | N/A | 12.5 | 12.8 | 11.8 | 12.4 | 12.4 | 13.0 | 12.6 |
| 11/2/2011 | 21 | N/A | 12.5 | 12.8 | 11.7 | 12.4 | 12.3 | 13.0 | 12.6 |
| 11/2/2011 | 22 | N/A | 12.5 | 12.7 | 11.6 | 12.3 | 12.3 | 13.0 | 12.6 |
| 11/2/2011 | 23 | N/A | 12.5 | 12.5 | 11.4 | 12.3 | 12.2 | 13.0 | 12.6 |
| 11/2/2011 | 24 | N/A | 12.5 | 12.7 | 11.3 | 12.3 | 12.2 | 13.0 | 12.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/3/2011 | 1 | N/A | 12.4 | 12.7 | 11.3 | 12.3 | 12.2 | 12.9 | 12.6 |
| 11/3/2011 | 2 | N/A | 12.4 | 12.6 | 11.3 | 12.3 | 12.2 | 12.9 | 12.6 |
| 11/3/2011 | 3 | N/A | 12.4 | 12.5 | 11.3 | 12.3 | 12.1 | 12.9 | 12.6 |
| 11/3/2011 | 4 | N/A | 12.4 | 12.5 | 11.2 | 12.2 | 12.1 | 12.9 | 12.5 |
| 11/3/2011 | 5 | N/A | 12.4 | 12.5 | 11.2 | 12.2 | 12.1 | 12.9 | 12.5 |
| 11/3/2011 | 6 | N/A | 12.3 | 12.5 | 11.2 | 12.2 | 12.1 | 12.9 | 12.5 |
| 11/3/2011 | 7 | N/A | 12.3 | 12.4 | 11.2 | 12.2 | 12.1 | 12.9 | 12.5 |
| 11/3/2011 | 8 | N/A | 12.3 | 12.4 | 11.2 | 12.2 | 12.1 | 12.9 | 12.5 |
| 11/3/2011 | 9 | N/A | 12.3 | 12.3 | 11.2 | 12.2 | 12.1 | 12.9 | 12.5 |
| 11/3/2011 | 10 | N/A | 12.3 | 12.4 | 11.2 | 12.2 | 12.1 | 12.9 | 12.4 |
| 11/3/2011 | 11 | N/A | 12.4 | 12.6 | 11.2 | 12.2 | 12.1 | 12.9 | 12.4 |
| 11/3/2011 | 12 | N/A | 12.4 | 12.8 | 11.2 | 12.2 | 12.1 | 12.9 | 12.4 |
| 11/3/2011 | 13 | N/A | 12.4 | 13.2 | 11.5 | 12.2 | 12.1 | 12.9 | 12.5 |
| 11/3/2011 | 14 | N/A | 12.4 | 13.6 | 11.5 | 12.2 | 12.2 | 12.9 | 12.5 |
| 11/3/2011 | 15 | N/A | 12.4 | 13.6 | 11.7 | 12.3 | 12.3 | 12.9 | 12.5 |
| 11/3/2011 | 16 | N/A | 12.4 | 13.5 | 11.9 | 12.4 | 12.3 | 12.9 | 12.6 |
| 11/3/2011 | 17 | N/A | 12.4 | 13.3 | 12.2 | 12.4 | 12.4 | 12.9 | 12.6 |
| 11/3/2011 | 18 | N/A | 12.4 | 12.8 | 12.2 | 12.4 | 12.4 | 12.9 | 12.6 |
| 11/3/2011 | 19 | N/A | 12.4 | 12.6 | 12.1 | 12.4 | 12.3 | 12.9 | 12.6 |
| 11/3/2011 | 20 | N/A | 12.4 | 12.4 | 11.8 | 12.3 | 12.3 | 12.9 | 12.5 |
| 11/3/2011 | 21 | N/A | 12.3 | 12.1 | 11.6 | 12.3 | 12.2 | 12.8 | 12.5 |
| 11/3/2011 | 22 | N/A | 12.3 | 12.0 | 11.3 | 12.2 | 12.1 | 12.8 | 12.5 |
| 11/3/2011 | 23 | N/A | 12.3 | 11.9 | 11.1 | 12.1 | 12.0 | 12.8 | 12.4 |
| 11/3/2011 | 24 | N/A | 12.2 | 11.7 | 10.9 | 12.1 | 12.0 | 12.8 | 12.4 |
| 11/4/2011 | 1 | N/A | 12.2 | 11.8 | 10.7 | 12.1 | 11.9 | 12.8 | 12.4 |
| 11/4/2011 | 2 | N/A | 12.2 | 11.7 | 10.6 | 12.0 | 11.8 | 12.7 | 12.4 |
| 11/4/2011 | 3 | N/A | 12.1 | 11.7 | 10.5 | 12.0 | 11.8 | 12.7 | 12.3 |
| 11/4/2011 | 4 | N/A | 12.1 | 11.7 | 10.4 | 11.9 | 11.7 | 12.7 | 12.3 |
| 11/4/2011 | 5 | N/A | 12.0 | 11.5 | 10.3 | 11.9 | 11.7 | 12.6 | 12.2 |
| 11/4/2011 | 6 | N/A | 12.0 | 11.6 | 10.2 | 11.8 | 11.6 | 12.6 | 12.2 |
| 11/4/2011 | 7 | N/A | 12.0 | 11.5 | 10.2 | 11.8 | 11.6 | 12.5 | 12.1 |
| 11/4/2011 | 8 | N/A | 11.9 | 11.4 | 10.1 | 11.7 | 11.5 | 12.5 | 12.1 |
| 11/4/2011 | 9 | N/A | 11.9 | 11.4 | 10.1 | 11.7 | 11.5 | 12.5 | 12.1 |
| 11/4/2011 | 10 | N/A | 11.9 | 11.5 | 10.2 | 11.7 | 11.5 | 12.6 | 12.0 |
| 11/4/2011 | 11 | N/A | 11.9 | 12.0 | 10.4 | 11.7 | 11.6 | 12.6 | 12.1 |
| 11/4/2011 | 12 | N/A | 11.9 | 12.4 | 10.7 | 11.7 | 11.6 | 12.6 | 12.1 |
| 11/4/2011 | 13 | N/A | 12.0 | 12.7 | 10.7 | 11.8 | 11.7 | 12.6 | 12.1 |
| 11/4/2011 | 14 | N/A | 12.0 | 13.0 | 10.6 | 11.9 | 11.8 | 12.6 | 12.2 |
| 11/4/2011 | 15 | N/A | 12.1 | 13.0 | 11.1 | 12.0 | 11.9 | 12.6 | 12.2 |
| 11/4/2011 | 16 | N/A | 12.1 | 12.8 | 11.5 | 12.1 | 12.0 | 12.6 | 12.3 |
| 11/4/2011 | 17 | N/A | 12.1 | 12.6 | 11.8 | 12.1 | 12.1 | 12.6 | 12.3 |
| 11/4/2011 | 18 | N/A | 12.1 | 12.2 | 11.8 | 12.1 | 12.1 | 12.6 | 12.3 |
| 11/4/2011 | 19 | N/A | 12.1 | 12.0 | 11.7 | 12.1 | 12.0 | 12.6 | 12.3 |
| 11/4/2011 | 20 | N/A | 12.1 | 11.7 | 11.5 | 12.1 | 12.0 | 12.6 | 12.3 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/4/2011 | 21 | N/A | 12.1 | 11.5 | 11.2 | 12.0 | 11.9 | 12.6 | 12.2 |
| 11/4/2011 | 22 | N/A | 12.0 | 11.4 | 11.0 | 12.0 | 11.8 | 12.6 | 12.2 |
| 11/4/2011 | 23 | N/A | 12.0 | 11.4 | 10.7 | 11.9 | 11.7 | 12.6 | 12.2 |
| 11/4/2011 | 24 | N/A | 12.0 | 11.3 | 10.5 | 11.9 | 11.7 | 12.6 | 12.2 |
| 11/5/2011 | 1 | N/A | 12.0 | 11.2 | 10.3 | 11.8 | 11.6 | 12.6 | 12.2 |
| 11/5/2011 | 2 | N/A | 11.9 | 11.2 | 10.2 | 11.8 | 11.6 | 12.6 | 12.1 |
| 11/5/2011 | 3 | N/A | 11.9 | 11.2 | 10.1 | 11.7 | 11.5 | 12.5 | 12.1 |
| 11/5/2011 | 4 | N/A | 11.9 | 11.1 | 10.1 | 11.7 | 11.5 | 12.5 | 12.1 |
| 11/5/2011 | 5 | N/A | 11.8 | 11.2 | 10.0 | 11.7 | 11.4 | 12.4 | 12.1 |
| 11/5/2011 | 6 | N/A | 11.8 | 11.1 | 9.9 | 11.6 | 11.4 | 12.4 | 12.0 |
| 11/5/2011 | 7 | N/A | 11.8 | 11.0 | 9.8 | 11.5 | 11.3 | 12.4 | 12.0 |
| 11/5/2011 | 8 | N/A | 11.7 | 11.0 | 9.8 | 11.5 | 11.3 | 12.3 | 11.9 |
| 11/5/2011 | 9 | N/A | 11.7 | 11.0 | 9.7 | 11.5 | 11.3 | 12.3 | 11.9 |
| 11/5/2011 | 10 | N/A | 11.7 | 11.2 | 9.9 | 11.4 | 11.3 | 12.3 | 11.9 |
| 11/5/2011 | 11 | N/A | 11.7 | 11.4 | 10.1 | 11.5 | 11.3 | 12.2 | 11.8 |
| 11/5/2011 | 12 | N/A | 11.7 | 11.7 | 10.3 | 11.5 | 11.4 | 12.3 | 11.9 |
| 11/5/2011 | 13 | N/A | 11.7 | 12.0 | 10.3 | 11.5 | 11.4 | 12.3 | 11.9 |
| 11/5/2011 | 14 | N/A | 11.8 | 12.5 | 10.3 | 11.6 | 11.5 | 12.3 | 11.9 |
| 11/5/2011 | 15 | N/A | 11.8 | 12.5 | 10.6 | 11.7 | 11.6 | 12.3 | 12.0 |
| 11/5/2011 | 16 | N/A | 11.8 | 12.4 | 10.9 | 11.8 | 11.7 | 12.3 | 12.0 |
| 11/5/2011 | 17 | N/A | 11.8 | 12.2 | 11.2 | 11.8 | 11.7 | 12.4 | 12.0 |
| 11/5/2011 | 18 | N/A | 11.8 | 12.0 | 11.2 | 11.8 | 11.7 | 12.4 | 12.0 |
| 11/5/2011 | 19 | N/A | 11.8 | 11.6 | 11.2 | 11.7 | 11.7 | 12.4 | 12.0 |
| 11/5/2011 | 20 | N/A | 11.7 | 11.4 | 11.0 | 11.7 | 11.6 | 12.3 | 12.0 |
| 11/5/2011 | 21 | N/A | 11.7 | 11.2 | 10.8 | 11.7 | 11.6 | 12.3 | 12.0 |
| 11/5/2011 | 22 | N/A | 11.7 | 11.1 | 10.6 | 11.6 | 11.5 | 12.3 | 11.9 |
| 11/5/2011 | 23 | N/A | 11.7 | 11.1 | 10.4 | 11.6 | 11.4 | 12.3 | 11.9 |
| 11/5/2011 | 24 | N/A | 11.7 | 11.0 | 10.2 | 11.5 | 11.3 | 12.2 | 11.9 |
| 11/6/2011 | 1 | N/A | 11.6 | 10.9 | 10.0 | 11.5 | 11.3 | 12.2 | 11.8 |
| 11/6/2011 | 2 | N/A | 11.6 | 11.0 | 9.9 | 11.4 | 11.2 | 12.2 | 11.8 |
| 11/6/2011 | 3 | N/A | 11.5 | 10.9 | 9.8 | 11.3 | 11.2 | 12.1 | 11.7 |
| 11/6/2011 | 4 | N/A | 11.5 | 10.8 | 9.7 | 11.3 | 11.1 | 12.1 | 11.7 |
| 11/6/2011 | 5 | N/A | 11.4 | 10.7 | 9.6 | 11.2 | 11.1 | 12.0 | 11.7 |
| 11/6/2011 | 6 | N/A | 11.4 | 10.8 | 9.5 | 11.2 | 11.0 | 12.0 | 11.6 |
| 11/6/2011 | 7 | N/A | 11.3 | 10.7 | 9.5 | 11.2 | 10.9 | 11.9 | 11.5 |
| 11/6/2011 | 8 | N/A | 11.3 | 10.7 | 9.4 | 11.1 | 10.9 | 11.9 | 11.5 |
| 11/6/2011 | 9 | N/A | 11.3 | 10.6 | 9.4 | 11.0 | 10.8 | 11.8 | 11.4 |
| 11/6/2011 | 10 | N/A | 11.2 | 10.7 | 9.4 | 11.0 | 10.8 | 11.8 | 11.4 |
| 11/6/2011 | 11 | N/A | 11.2 | 11.1 | 9.6 | 11.0 | 10.9 | 11.9 | 11.4 |
| 11/6/2011 | 12 | N/A | 11.3 | 11.3 | 9.9 | 11.1 | 11.0 | 11.9 | 11.5 |
| 11/6/2011 | 13 | N/A | 11.4 | 11.8 | 10.0 | 11.2 | 11.1 | 11.9 | 11.5 |
| 11/6/2011 | 14 | N/A | 11.4 | 12.3 | 9.9 | 11.2 | 11.2 | 12.0 | 11.6 |
| 11/6/2011 | 15 | N/A | 11.5 | 12.6 | 10.2 | 11.3 | 11.2 | 12.0 | 11.7 |
| 11/6/2011 | 16 | N/A | 11.5 | 12.4 | 10.6 | 11.5 | 11.3 | 12.1 | 11.7 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/6/2011 | 17 | N/A | 11.5 | 12.2 | 10.9 | 11.5 | 11.4 | 12.1 | 11.7 |
| 11/6/2011 | 18 | N/A | 11.5 | 12.0 | 11.0 | 11.5 | 11.4 | 12.1 | 11.8 |
| 11/6/2011 | 19 | N/A | 11.5 | 11.6 | 10.9 | 11.5 | 11.4 | 12.1 | 11.7 |
| 11/6/2011 | 20 | N/A | 11.5 | 11.4 | 10.7 | 11.5 | 11.4 | 12.1 | 11.7 |
| 11/6/2011 | 21 | N/A | 11.5 | 11.2 | 10.5 | 11.4 | 11.3 | 12.0 | 11.7 |
| 11/6/2011 | 22 | N/A | 11.4 | 11.1 | 10.3 | 11.3 | 11.2 | 12.0 | 11.6 |
| 11/6/2011 | 23 | N/A | 11.4 | 11.0 | 10.1 | 11.3 | 11.1 | 12.0 | 11.6 |
| 11/6/2011 | 24 | N/A | 11.4 | 10.9 | 9.9 | 11.2 | 11.1 | 12.0 | 11.6 |
| 11/7/2011 | 1 | N/A | 11.3 | 10.9 | 9.8 | 11.2 | 11.0 | 11.9 | 11.6 |
| 11/7/2011 | 2 | N/A | 11.3 | 10.8 | 9.6 | 11.2 | 11.0 | 11.9 | 11.5 |
| 11/7/2011 | 3 | N/A | 11.3 | 10.7 | 9.6 | 11.1 | 10.9 | 11.9 | 11.5 |
| 11/7/2011 | 4 | N/A | 11.2 | 10.6 | 9.5 | 11.1 | 10.9 | 11.8 | 11.4 |
| 11/7/2011 | 5 | N/A | 11.2 | 10.6 | 9.4 | 11.0 | 10.8 | 11.8 | 11.4 |
| 11/7/2011 | 6 | N/A | 11.2 | 10.6 | 9.3 | 10.9 | 10.7 | 11.7 | 11.4 |
| 11/7/2011 | 7 | N/A | 11.1 | 10.6 | 9.3 | 10.9 | 10.7 | 11.7 | 11.3 |
| 11/7/2011 | 8 | N/A | 11.1 | 10.6 | 9.2 | 10.9 | 10.7 | 11.7 | 11.2 |
| 11/7/2011 | 9 | N/A | 11.1 | 10.5 | 9.2 | 10.8 | 10.7 | 11.6 | 11.2 |
| 11/7/2011 | 10 | N/A | 11.1 | 10.8 | 9.3 | 10.8 | 10.7 | 11.6 | 11.2 |
| 11/7/2011 | 11 | N/A | 11.1 | 10.8 | 9.4 | 10.8 | 10.7 | 11.6 | 11.2 |
| 11/7/2011 | 12 | N/A | 11.1 | 10.9 | 9.4 | 10.8 | 10.7 | 11.6 | 11.2 |
| 11/7/2011 | 13 | N/A | 11.0 | 11.0 | 9.5 | 10.8 | 10.7 | 11.6 | 11.2 |
| 11/7/2011 | 14 | N/A | 11.0 | 11.0 | 9.6 | 10.8 | 10.7 | 11.6 | 11.2 |
| 11/7/2011 | 15 | N/A | 11.0 | 11.0 | 9.7 | 10.9 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 16 | N/A | 11.0 | 10.8 | 9.8 | 11.1 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 17 | N/A | 11.0 | 10.7 | 9.8 | 11.1 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 18 | N/A | 11.0 | 10.7 | 9.8 | 11.0 | 10.8 | 11.6 | 11.1 |
| 11/7/2011 | 19 | N/A | 11.0 | 10.6 | 9.8 | 11.0 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 20 | N/A | 11.0 | 10.6 | 9.8 | 11.1 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 21 | N/A | 11.0 | 10.4 | 9.8 | 11.1 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 22 | N/A | 11.0 | 10.3 | 9.7 | 11.0 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 23 | N/A | 11.0 | 10.2 | 9.5 | 11.0 | 10.8 | 11.6 | 11.2 |
| 11/7/2011 | 24 | N/A | 10.9 | 10.1 | 9.4 | 11.0 | 10.7 | 11.5 | 11.2 |
| 11/8/2011 | 1 | N/A | 10.9 | 10.1 | 9.3 | 10.9 | 10.7 | 11.5 | 11.1 |
| 11/8/2011 | 2 | N/A | 10.9 | 10.0 | 9.1 | 10.9 | 10.6 | 11.5 | 11.1 |
| 11/8/2011 | 3 | N/A | 10.9 | 10.0 | 9.1 | 10.9 | 10.6 | 11.5 | 11.0 |
| 11/8/2011 | 4 | N/A | 10.8 | 10.0 | 9.0 | 10.8 | 10.5 | 11.5 | 11.0 |
| 11/8/2011 | 5 | N/A | 10.8 | 10.0 | 8.9 | 10.8 | 10.5 | 11.4 | 11.0 |
| 11/8/2011 | 6 | N/A | 10.8 | 10.1 | 8.9 | 10.8 | 10.5 | 11.4 | 11.0 |
| 11/8/2011 | 7 | N/A | 10.8 | 10.2 | 8.9 | 10.7 | 10.4 | 11.4 | 10.9 |
| 11/8/2011 | 8 | N/A | 10.8 | 10.2 | 8.9 | 10.7 | 10.4 | 11.3 | 10.9 |
| 11/8/2011 | 9 | N/A | 10.7 | 10.2 | 9.0 | 10.7 | 10.4 | 11.3 | 10.9 |
| 11/8/2011 | 10 | N/A | 10.7 | 10.3 | 9.1 | 10.7 | 10.4 | 11.3 | 10.8 |
| 11/8/2011 | 11 | N/A | 10.7 | 10.4 | 9.2 | 10.7 | 10.4 | 11.3 | 10.8 |
| 11/8/2011 | 12 | N/A | 10.7 | 10.6 | 9.4 | 10.6 | 10.4 | 11.3 | 10.7 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/8/2011 | 13 | N/A | 10.6 | 10.8 | 9.5 | 10.7 | 10.5 | 11.3 | 10.8 |
| 11/8/2011 | 14 | N/A | 10.7 | 11.0 | 9.6 | 10.7 | 10.6 | 11.4 | 10.8 |
| 11/8/2011 | 15 | N/A | 10.7 | 11.2 | 9.7 | 10.8 | 10.6 | 11.4 | 10.9 |
| 11/8/2011 | 16 | N/A | 10.7 | 11.1 | 9.9 | 10.8 | 10.7 | 11.4 | 10.9 |
| 11/8/2011 | 17 | N/A | 10.8 | 11.0 | 10.2 | 10.9 | 10.7 | 11.4 | 11.0 |
| 11/8/2011 | 18 | N/A | 10.8 | 10.8 | 10.2 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/8/2011 | 19 | N/A | 10.8 | 10.6 | 10.2 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/8/2011 | 20 | N/A | 10.9 | 10.5 | 10.1 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/8/2011 | 21 | N/A | 10.9 | 10.5 | 10.0 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/8/2011 | 22 | N/A | 10.9 | 10.5 | 9.9 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/8/2011 | 23 | N/A | 10.9 | 10.5 | 9.7 | 11.0 | 10.7 | 11.5 | 11.1 |
| 11/8/2011 | 24 | N/A | 10.9 | 10.5 | 9.7 | 11.0 | 10.7 | 11.5 | 11.1 |
| 11/9/2011 | 1 | N/A | 10.9 | 10.5 | 9.6 | 11.0 | 10.7 | 11.5 | 11.1 |
| 11/9/2011 | 2 | N/A | 10.9 | 10.5 | 9.7 | 11.0 | 10.7 | 11.5 | 11.1 |
| 11/9/2011 | 3 | N/A | 10.9 | 10.5 | 9.7 | 11.0 | 10.7 | 11.5 | 11.1 |
| 11/9/2011 | 4 | N/A | 11.0 | 10.5 | 9.7 | 11.0 | 10.7 | 11.5 | 11.1 |
| 11/9/2011 | 5 | N/A | 11.0 | 10.6 | 9.7 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/9/2011 | 6 | N/A | 11.0 | 10.6 | 9.7 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/9/2011 | 7 | N/A | 11.0 | 10.6 | 9.7 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/9/2011 | 8 | N/A | 11.0 | 10.7 | 9.8 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/9/2011 | 9 | N/A | 11.0 | 10.7 | 9.8 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/9/2011 | 10 | N/A | 11.0 | 10.9 | 9.9 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/9/2011 | 11 | N/A | 11.0 | 11.0 | 10.0 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/9/2011 | 12 | N/A | 11.1 | 11.2 | 10.1 | 11.1 | 10.9 | 11.6 | 11.1 |
| 11/9/2011 | 13 | N/A | 11.1 | 11.4 | 10.3 | 11.1 | 11.0 | 11.6 | 11.1 |
| 11/9/2011 | 14 | N/A | 11.2 | 11.6 | 10.5 | 11.2 | 11.1 | 11.6 | 11.2 |
| 11/9/2011 | 15 | N/A | 11.2 | 11.7 | 10.7 | 11.2 | 11.1 | 11.7 | 11.2 |
| 11/9/2011 | 16 | N/A | 11.2 | 11.6 | 10.8 | 11.3 | 11.1 | 11.7 | 11.2 |
| 11/9/2011 | 17 | N/A | 11.2 | 11.4 | 10.9 | 11.3 | 11.2 | 11.7 | 11.2 |
| 11/9/2011 | 18 | N/A | 11.2 | 11.2 | 10.9 | 11.3 | 11.2 | 11.7 | 11.3 |
| 11/9/2011 | 19 | N/A | 11.1 | 11.0 | 10.8 | 11.3 | 11.2 | 11.8 | 11.3 |
| 11/9/2011 | 20 | N/A | 11.1 | 10.8 | 10.6 | 11.3 | 11.1 | 11.7 | 11.3 |
| 11/9/2011 | 21 | N/A | 11.1 | 10.6 | 10.4 | 11.2 | 11.1 | 11.7 | 11.3 |
| 11/9/2011 | 22 | N/A | 11.1 | 10.5 | 10.1 | 11.2 | 11.0 | 11.7 | 11.2 |
| 11/9/2011 | 23 | N/A | 11.1 | 10.4 | 9.9 | 11.2 | 10.9 | 11.7 | 11.2 |
| 11/9/2011 | 24 | N/A | 11.0 | 10.3 | 9.8 | 11.1 | 10.9 | 11.7 | 11.2 |
| 11/10/2011 | 1 | N/A | 11.0 | 10.3 | 9.7 | 11.1 | 10.9 | 11.7 | 11.2 |
| 11/10/2011 | 2 | N/A | 11.0 | 10.4 | 9.6 | 11.1 | 10.8 | 11.7 | 11.2 |
| 11/10/2011 | 3 | N/A | 11.0 | 10.4 | 9.5 | 11.0 | 10.8 | 11.6 | 11.2 |
| 11/10/2011 | 4 | N/A | 11.0 | 10.5 | 9.5 | 11.0 | 10.8 | 11.6 | 11.2 |
| 11/10/2011 | 5 | N/A | 11.0 | 10.5 | 9.5 | 11.0 | 10.7 | 11.6 | 11.1 |
| 11/10/2011 | 6 | N/A | 11.0 | 10.6 | 9.5 | 11.0 | 10.7 | 11.6 | 11.1 |
| 11/10/2011 | 7 | N/A | 11.0 | 10.6 | 9.6 | 11.0 | 10.7 | 11.6 | 11.1 |
| 11/10/2011 | 8 | N/A | 11.0 | 10.6 | 9.6 | 11.0 | 10.7 | 11.6 | 11.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/10/2011 | 9 | N/A | 11.0 | 10.7 | 9.7 | 11.0 | 10.7 | 11.5 | 11.0 |
| 11/10/2011 | 10 | N/A | 11.0 | 10.8 | 9.8 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/10/2011 | 11 | N/A | 11.0 | 10.9 | 9.9 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/10/2011 | 12 | N/A | 11.0 | 11.1 | 10.0 | 11.0 | 10.8 | 11.5 | 11.1 |
| 11/10/2011 | 13 | N/A | 11.0 | 11.3 | 10.1 | 11.0 | 10.9 | 11.6 | 11.1 |
| 11/10/2011 | 14 | N/A | 11.0 | 11.7 | 10.3 | 11.1 | 11.0 | 11.6 | 11.1 |
| 11/10/2011 | 15 | N/A | 11.1 | 11.7 | 10.4 | 11.2 | 11.0 | 11.6 | 11.2 |
| 11/10/2011 | 16 | N/A | 11.1 | 11.7 | 10.7 | 11.2 | 11.1 | 11.6 | 11.2 |
| 11/10/2011 | 17 | N/A | 11.1 | 11.5 | 10.9 | 11.2 | 11.1 | 11.6 | 11.2 |
| 11/10/2011 | 18 | N/A | 11.0 | 11.2 | 11.0 | 11.2 | 11.1 | 11.7 | 11.2 |
| 11/10/2011 | 19 | N/A | 11.0 | 10.9 | 10.9 | 11.2 | 11.1 | 11.7 | 11.2 |
| 11/10/2011 | 20 | N/A | 11.0 | 10.7 | 10.7 | 11.2 | 11.1 | 11.7 | 11.2 |
| 11/10/2011 | 21 | N/A | 11.0 | 10.5 | 10.4 | 11.2 | 11.0 | 11.7 | 11.2 |
| 11/10/2011 | 22 | N/A | 11.0 | 10.4 | 10.2 | 11.1 | 11.0 | 11.6 | 11.2 |
| 11/10/2011 | 23 | N/A | 11.0 | 10.3 | 9.9 | 11.1 | 10.9 | 11.6 | 11.2 |
| 11/10/2011 | 24 | N/A | 11.0 | 10.3 | 9.7 | 11.1 | 10.8 | 11.6 | 11.2 |
| 11/11/2011 | 1 | N/A | 11.0 | 10.2 | 9.6 | 11.0 | 10.8 | 11.6 | 11.2 |
| 11/11/2011 | 2 | N/A | 11.0 | 10.2 | 9.4 | 11.0 | 10.8 | 11.6 | 11.2 |
| 11/11/2011 | 3 | N/A | 11.0 | 10.2 | 9.4 | 11.0 | 10.8 | 11.6 | 11.1 |
| 11/11/2011 | 4 | N/A | 11.0 | 10.2 | 9.3 | 11.0 | 10.7 | 11.6 | 11.1 |
| 11/11/2011 | 5 | N/A | 10.9 | 10.2 | 9.3 | 11.0 | 10.7 | 11.5 | 11.1 |
| 11/11/2011 | 6 | N/A | 10.9 | 10.2 | 9.3 | 10.9 | 10.6 | 11.5 | 11.1 |
| 11/11/2011 | 7 | N/A | 10.9 | 10.2 | 9.3 | 10.9 | 10.6 | 11.4 | 11.0 |
| 11/11/2011 | 8 | N/A | 10.8 | 10.2 | 9.3 | 10.8 | 10.6 | 11.4 | 11.0 |
| 11/11/2011 | 9 | N/A | 10.8 | 10.2 | 9.3 | 10.8 | 10.5 | 11.4 | 10.9 |
| 11/11/2011 | 10 | N/A | 10.8 | 10.3 | 9.3 | 10.7 | 10.5 | 11.3 | 10.8 |
| 11/11/2011 | 11 | N/A | 10.8 | 10.5 | 9.4 | 10.7 | 10.5 | 11.3 | 10.8 |
| 11/11/2011 | 12 | N/A | 10.8 | 10.6 | 9.4 | 10.7 | 10.5 | 11.4 | 10.8 |
| 11/11/2011 | 13 | N/A | 10.8 | 10.8 | 9.5 | 10.8 | 10.5 | 11.4 | 10.8 |
| 11/11/2011 | 14 | N/A | 10.8 | 10.9 | 9.7 | 10.8 | 10.6 | 11.4 | 10.9 |
| 11/11/2011 | 15 | N/A | 10.9 | 11.1 | 9.8 | 10.9 | 10.7 | 11.4 | 11.0 |
| 11/11/2011 | 16 | N/A | 10.9 | 11.1 | 10.0 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/11/2011 | 17 | N/A | 10.9 | 11.0 | 10.1 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/11/2011 | 18 | N/A | 10.9 | 10.8 | 10.2 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/11/2011 | 19 | N/A | 10.9 | 10.7 | 10.2 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/11/2011 | 20 | N/A | 10.9 | 10.6 | 10.1 | 11.0 | 10.8 | 11.5 | 11.0 |
| 11/11/2011 | 21 | N/A | 10.9 | 10.5 | 10.0 | 11.0 | 10.7 | 11.4 | 11.0 |
| 11/11/2011 | 22 | N/A | 10.9 | 10.4 | 9.9 | 10.9 | 10.7 | 11.4 | 11.0 |
| 11/11/2011 | 23 | N/A | 10.9 | 10.3 | 9.7 | 10.9 | 10.7 | 11.4 | 11.0 |
| 11/11/2011 | 24 | N/A | 10.8 | 10.2 | 9.6 | 10.9 | 10.6 | 11.4 | 11.0 |
| 11/12/2011 | 1 | N/A | 10.8 | 10.2 | 9.5 | 10.8 | 10.6 | 11.3 | 10.9 |
| 11/12/2011 | 2 | N/A | 10.7 | 10.1 | 9.4 | 10.8 | 10.5 | 11.3 | 10.9 |
| 11/12/2011 | 3 | N/A | 10.7 | 10.0 | 9.3 | 10.7 | 10.4 | 11.3 | 10.8 |
| 11/12/2011 | 4 | N/A | 10.6 | 10.1 | 9.2 | 10.6 | 10.4 | 11.3 | 10.8 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/12/2011 | 5 | N/A | 10.6 | 10.0 | 9.2 | 10.6 | 10.3 | 11.3 | 10.7 |
| 11/12/2011 | 6 | N/A | 10.6 | 10.0 | 9.1 | 10.6 | 10.3 | 11.3 | 10.8 |
| 11/12/2011 | 7 | N/A | 10.6 | 10.0 | 9.1 | 10.6 | 10.3 | 11.3 | 10.7 |
| 11/12/2011 | 8 | N/A | 10.5 | 9.9 | 9.1 | 10.6 | 10.3 | 11.2 | 10.7 |
| 11/12/2011 | 9 | N/A | 10.6 | 10.0 | 9.1 | 10.6 | 10.3 | 11.2 | 10.7 |
| 11/12/2011 | 10 | N/A | 10.6 | 10.2 | 9.1 | 10.6 | 10.3 | 11.2 | 10.7 |
| 11/12/2011 | 11 | N/A | 10.6 | 10.4 | 9.2 | 10.6 | 10.4 | 11.2 | 10.7 |
| 11/12/2011 | 12 | N/A | 10.7 | 10.6 | 9.3 | 10.6 | 10.4 | 11.2 | 10.7 |
| 11/12/2011 | 13 | N/A | 10.7 | 10.6 | 9.4 | 10.6 | 10.4 | 11.2 | 10.8 |
| 11/12/2011 | 14 | N/A | 10.7 | 10.5 | 9.6 | 10.7 | 10.5 | 11.2 | 10.8 |
| 11/12/2011 | 15 | N/A | 10.7 | 10.5 | 9.7 | 10.7 | 10.5 | 11.2 | 10.8 |
| 11/12/2011 | 16 | N/A | 10.7 | 10.4 | 9.7 | 10.7 | 10.5 | 11.2 | 10.7 |
| 11/12/2011 | 17 | N/A | 10.6 | 10.3 | 9.7 | 10.6 | 10.4 | 11.2 | 10.7 |
| 11/12/2011 | 18 | N/A | 10.6 | 10.2 | 9.7 | 10.6 | 10.4 | 11.2 | 10.7 |
| 11/12/2011 | 19 | N/A | 10.6 | 10.1 | 9.6 | 10.6 | 10.4 | 11.1 | 10.7 |
| 11/12/2011 | 20 | N/A | 10.6 | 10.0 | 9.5 | 10.6 | 10.3 | 11.1 | 10.6 |
| 11/12/2011 | 21 | N/A | 10.5 | 9.9 | 9.4 | 10.6 | 10.3 | 11.1 | 10.6 |
| 11/12/2011 | 22 | N/A | 10.5 | 9.9 | 9.3 | 10.5 | 10.3 | 11.0 | 10.6 |
| 11/12/2011 | 23 | N/A | 10.5 | 9.8 | 9.1 | 10.4 | 10.2 | 11.0 | 10.5 |
| 11/12/2011 | 24 | N/A | 10.4 | 9.8 | 9.1 | 10.4 | 10.1 | 11.0 | 10.5 |
| 11/13/2011 | 1 | N/A | 10.4 | 9.8 | 9.0 | 10.3 | 10.1 | 10.9 | 10.5 |
| 11/13/2011 | 2 | N/A | 10.3 | 9.7 | 8.9 | 10.3 | 10.1 | 10.9 | 10.4 |
| 11/13/2011 | 3 | N/A | 10.3 | 9.6 | 8.9 | 10.3 | 10.0 | 10.9 | 10.4 |
| 11/13/2011 | 4 | N/A | 10.2 | 9.5 | 8.8 | 10.2 | 9.9 | 10.8 | 10.3 |
| 11/13/2011 | 5 | N/A | 10.1 | 9.4 | 8.8 | 10.1 | 9.9 | 10.8 | 10.3 |
| 11/13/2011 | 6 | N/A | 10.1 | 9.4 | 8.7 | 10.1 | 9.9 | 10.7 | 10.3 |
| 11/13/2011 | 7 | N/A | 10.1 | 9.4 | 8.6 | 10.1 | 9.8 | 10.7 | 10.2 |
| 11/13/2011 | 8 | N/A | 10.0 | 9.4 | 8.5 | 10.0 | 9.8 | 10.6 | 10.1 |
| 11/13/2011 | 9 | N/A | 10.0 | 9.4 | 8.5 | 10.0 | 9.7 | 10.6 | 10.1 |
| 11/13/2011 | 10 | N/A | 10.0 | 9.6 | 8.6 | 9.9 | 9.7 | 10.5 | 10.0 |
| 11/13/2011 | 11 | N/A | 9.9 | 9.9 | 8.8 | 10.0 | 9.8 | 10.5 | 10.0 |
| 11/13/2011 | 12 | N/A | 10.0 | 10.3 | 8.9 | 10.0 | 9.8 | 10.6 | 10.1 |
| 11/13/2011 | 13 | N/A | 10.0 | 10.4 | 8.8 | 10.0 | 9.8 | 10.6 | 10.1 |
| 11/13/2011 | 14 | N/A | 10.0 | 10.5 | 9.1 | 10.0 | 9.9 | 10.6 | 10.1 |
| 11/13/2011 | 15 | N/A | 10.1 | 10.5 | 9.5 | 10.1 | 9.9 | 10.6 | 10.1 |
| 11/13/2011 | 16 | N/A | 10.1 | 10.4 | 9.7 | 10.2 | 10.0 | 10.6 | 10.1 |
| 11/13/2011 | 17 | N/A | 10.0 | 10.2 | 9.8 | 10.2 | 10.0 | 10.6 | 10.1 |
| 11/13/2011 | 18 | N/A | 10.0 | 10.0 | 9.8 | 10.2 | 10.0 | 10.6 | 10.1 |
| 11/13/2011 | 19 | N/A | 10.0 | 9.9 | 9.7 | 10.2 | 10.0 | 10.7 | 10.1 |
| 11/13/2011 | 20 | N/A | 10.1 | 9.8 | 9.5 | 10.2 | 10.0 | 10.7 | 10.2 |
| 11/13/2011 | 21 | N/A | 10.1 | 9.7 | 9.4 | 10.2 | 10.0 | 10.8 | 10.3 |
| 11/13/2011 | 22 | N/A | 10.1 | 9.7 | 9.2 | 10.2 | 10.0 | 10.8 | 10.3 |
| 11/13/2011 | 23 | N/A | 10.2 | 9.6 | 9.1 | 10.3 | 10.0 | 10.8 | 10.4 |
| 11/13/2011 | 24 | N/A | 10.2 | 9.6 | 9.0 | 10.3 | 10.1 | 10.9 | 10.4 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/14/2011 | 1 | N/A | 10.3 | 9.6 | 8.9 | 10.4 | 10.1 | 10.9 | 10.5 |
| 11/14/2011 | 2 | N/A | 10.4 | 9.5 | 8.9 | 10.4 | 10.1 | 10.9 | 10.5 |
| 11/14/2011 | 3 | N/A | 10.3 | 9.5 | 8.8 | 10.3 | 10.1 | 10.9 | 10.4 |
| 11/14/2011 | 4 | N/A | 10.3 | 9.5 | 8.8 | 10.2 | 10.0 | 10.9 | 10.4 |
| 11/14/2011 | 5 | N/A | 10.2 | 9.5 | 8.8 | 10.2 | 10.0 | 10.8 | 10.3 |
| 11/14/2011 | 6 | N/A | 10.2 | 9.5 | 8.7 | 10.2 | 10.0 | 10.8 | 10.3 |
| 11/14/2011 | 7 | N/A | 10.2 | 9.5 | 8.7 | 10.1 | 9.9 | 10.8 | 10.3 |
| 11/14/2011 | 8 | N/A | 10.1 | 9.5 | 8.7 | 10.1 | 9.9 | 10.7 | 10.2 |
| 11/14/2011 | 9 | N/A | 10.1 | 9.5 | 8.6 | 10.1 | 9.8 | 10.7 | 10.2 |
| 11/14/2011 | 10 | N/A | 10.1 | 9.5 | 8.7 | 10.0 | 9.8 | 10.7 | 10.1 |
| 11/14/2011 | 11 | N/A | 10.1 | 9.9 | 8.8 | 10.1 | 9.8 | 10.7 | 10.1 |
| 11/14/2011 | 12 | N/A | 10.1 | 10.2 | 8.8 | 10.1 | 9.9 | 10.7 | 10.2 |
| 11/14/2011 | 13 | N/A | 10.1 | 10.6 | 8.8 | 10.1 | 10.0 | 10.8 | 10.3 |
| 11/14/2011 | 14 | N/A | 10.2 | 10.7 | 9.0 | 10.2 | 10.1 | 10.8 | 10.3 |
| 11/14/2011 | 15 | N/A | 10.3 | 10.8 | 9.3 | 10.4 | 10.2 | 10.9 | 10.4 |
| 11/14/2011 | 16 | N/A | 10.3 | 10.5 | 9.6 | 10.5 | 10.3 | 10.9 | 10.5 |
| 11/14/2011 | 17 | N/A | 10.4 | 10.2 | 9.8 | 10.6 | 10.3 | 11.0 | 10.6 |
| 11/14/2011 | 18 | N/A | 10.4 | 10.0 | 9.8 | 10.5 | 10.3 | 11.0 | 10.5 |
| 11/14/2011 | 19 | N/A | 10.3 | 9.8 | 9.7 | 10.5 | 10.3 | 11.0 | 10.5 |
| 11/14/2011 | 20 | N/A | 10.3 | 9.7 | 9.4 | 10.4 | 10.2 | 10.9 | 10.5 |
| 11/14/2011 | 21 | N/A | 10.2 | 9.5 | 9.2 | 10.4 | 10.1 | 10.9 | 10.4 |
| 11/14/2011 | 22 | N/A | 10.2 | 9.5 | 8.9 | 10.3 | 10.1 | 10.8 | 10.4 |
| 11/14/2011 | 23 | N/A | 10.2 | 9.4 | 8.8 | 10.2 | 10.0 | 10.7 | 10.3 |
| 11/14/2011 | 24 | N/A | 10.1 | 9.3 | 8.7 | 10.1 | 9.9 | 10.7 | 10.2 |
| 11/15/2011 | 1 | N/A | 10.1 | 9.3 | 8.5 | 10.1 | 9.8 | 10.6 | 10.2 |
| 11/15/2011 | 2 | N/A | 10.0 | 9.2 | 8.4 | 10.0 | 9.7 | 10.6 | 10.1 |
| 11/15/2011 | 3 | N/A | 9.9 | 9.2 | 8.4 | 9.9 | 9.7 | 10.5 | 10.1 |
| 11/15/2011 | 4 | N/A | 9.9 | 9.1 | 8.3 | 9.9 | 9.6 | 10.5 | 10.1 |
| 11/15/2011 | 5 | N/A | 9.8 | 9.0 | 8.2 | 9.8 | 9.6 | 10.5 | 10.0 |
| 11/15/2011 | 6 | N/A | 9.8 | 9.0 | 8.2 | 9.8 | 9.5 | 10.4 | 10.0 |
| 11/15/2011 | 7 | N/A | 9.7 | 8.9 | 8.1 | 9.8 | 9.5 | 10.4 | 9.9 |
| 11/15/2011 | 8 | N/A | 9.7 | 8.8 | 8.0 | 9.7 | 9.4 | 10.4 | 9.9 |
| 11/15/2011 | 9 | N/A | 9.6 | 8.7 | 7.9 | 9.6 | 9.3 | 10.3 | 9.8 |
| 11/15/2011 | 10 | N/A | 9.6 | 8.8 | 7.9 | 9.6 | 9.3 | 10.3 | 9.8 |
| 11/15/2011 | 11 | N/A | 9.6 | 9.2 | 8.1 | 9.6 | 9.3 | 10.3 | 9.7 |
| 11/15/2011 | 12 | N/A | 9.6 | 9.6 | 8.1 | 9.6 | 9.4 | 10.4 | 9.7 |
| 11/15/2011 | 13 | N/A | 9.6 | 10.0 | 8.1 | 9.6 | 9.4 | 10.4 | 9.7 |
| 11/15/2011 | 14 | N/A | 9.6 | 10.3 | 8.2 | 9.6 | 9.4 | 10.4 | 9.7 |
| 11/15/2011 | 15 | N/A | 9.6 | 10.4 | 8.5 | 9.7 | 9.5 | 10.5 | 9.8 |
| 11/15/2011 | 16 | N/A | 9.7 | 10.1 | 9.0 | 9.9 | 9.7 | 10.5 | 9.9 |
| 11/15/2011 | 17 | N/A | 9.7 | 9.9 | 9.3 | 10.0 | 9.8 | 10.6 | 10.0 |
| 11/15/2011 | 18 | N/A | 9.8 | 9.6 | 9.4 | 10.1 | 9.9 | 10.6 | 10.1 |
| 11/15/2011 | 19 | N/A | 9.9 | 9.4 | 9.3 | 10.1 | 9.9 | 10.6 | 10.1 |
| 11/15/2011 | 20 | N/A | 9.9 | 9.1 | 9.1 | 10.1 | 9.9 | 10.5 | 10.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/15/2011 | 21 | N/A | 9.9 | 9.1 | 8.8 | 10.0 | 9.8 | 10.5 | 10.1 |
| 11/15/2011 | 22 | N/A | 9.9 | 8.9 | 8.6 | 9.9 | 9.7 | 10.5 | 10.0 |
| 11/15/2011 | 23 | N/A | 9.8 | 8.8 | 8.3 | 9.9 | 9.6 | 10.5 | 10.0 |
| 11/15/2011 | 24 | N/A | 9.8 | 8.8 | 8.2 | 9.8 | 9.5 | 10.4 | 9.9 |
| 11/16/2011 | 1 | N/A | 9.7 | 8.8 | 8.0 | 9.8 | 9.5 | 10.4 | 9.9 |
| 11/16/2011 | 2 | N/A | 9.7 | 8.8 | 7.9 | 9.7 | 9.4 | 10.4 | 9.9 |
| 11/16/2011 | 3 | N/A | 9.7 | 8.7 | 7.9 | 9.6 | 9.3 | 10.3 | 9.8 |
| 11/16/2011 | 4 | N/A | 9.6 | 8.7 | 7.8 | 9.6 | 9.3 | 10.3 | 9.8 |
| 11/16/2011 | 5 | N/A | 9.5 | 8.6 | 7.8 | 9.5 | 9.2 | 10.3 | 9.6 |
| 11/16/2011 | 6 | N/A | 9.4 | 8.6 | 7.7 | 9.4 | 9.1 | 10.2 | 9.6 |
| 11/16/2011 | 7 | N/A | 9.4 | 8.5 | 7.7 | 9.4 | 9.1 | 10.2 | 9.6 |
| 11/16/2011 | 8 | N/A | 9.4 | 8.4 | 7.6 | 9.4 | 9.1 | 10.1 | 9.6 |
| 11/16/2011 | 9 | N/A | 9.4 | 8.4 | 7.6 | 9.3 | 9.1 | 10.1 | 9.5 |
| 11/16/2011 | 10 | N/A | 9.4 | 8.6 | 7.6 | 9.4 | 9.1 | 10.1 | 9.5 |
| 11/16/2011 | 11 | N/A | 9.4 | 8.6 | 7.6 | 9.4 | 9.1 | 10.1 | 9.6 |
| 11/16/2011 | 12 | N/A | 9.4 | 8.7 | 7.7 | 9.4 | 9.1 | 10.1 | 9.6 |
| 11/16/2011 | 13 | N/A | 9.5 | 8.8 | 7.7 | 9.4 | 9.2 | 10.1 | 9.6 |
| 11/16/2011 | 14 | N/A | 9.5 | 8.9 | 7.8 | 9.4 | 9.2 | 10.1 | 9.6 |
| 11/16/2011 | 15 | N/A | 9.5 | 9.0 | 7.9 | 9.5 | 9.2 | 10.1 | 9.6 |
| 11/16/2011 | 16 | N/A | 9.5 | 9.0 | 8.0 | 9.5 | 9.2 | 10.1 | 9.6 |
| 11/16/2011 | 17 | N/A | 9.4 | 8.9 | 8.0 | 9.5 | 9.2 | 10.2 | 9.6 |
| 11/16/2011 | 18 | N/A | 9.4 | 8.9 | 8.1 | 9.5 | 9.2 | 10.2 | 9.6 |
| 11/16/2011 | 19 | N/A | 9.5 | 8.8 | 8.1 | 9.5 | 9.3 | 10.1 | 9.7 |
| 11/16/2011 | 20 | N/A | 9.5 | 8.8 | 8.1 | 9.5 | 9.3 | 10.1 | 9.7 |
| 11/16/2011 | 21 | N/A | 9.5 | 8.8 | 8.1 | 9.5 | 9.3 | 10.1 | 9.7 |
| 11/16/2011 | 22 | N/A | 9.5 | 8.9 | 8.0 | 9.5 | 9.3 | 10.1 | 9.7 |
| 11/16/2011 | 23 | N/A | 9.5 | 8.9 | 8.0 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/16/2011 | 24 | N/A | 9.5 | 8.9 | 8.0 | 9.5 | 9.2 | 10.1 | 9.6 |
| 11/17/2011 | 1 | N/A | 9.4 | 8.7 | 8.0 | 9.4 | 9.2 | 10.0 | 9.6 |
| 11/17/2011 | 2 | N/A | 9.4 | 8.7 | 8.0 | 9.4 | 9.1 | 10.0 | 9.5 |
| 11/17/2011 | 3 | N/A | 9.4 | 8.5 | 7.9 | 9.3 | 9.1 | 10.0 | 9.5 |
| 11/17/2011 | 4 | N/A | 9.3 | 8.5 | 7.8 | 9.3 | 9.0 | 10.0 | 9.4 |
| 11/17/2011 | 5 | N/A | 9.3 | 8.5 | 7.8 | 9.2 | 9.0 | 10.0 | 9.4 |
| 11/17/2011 | 6 | N/A | 9.2 | 8.5 | 7.7 | 9.2 | 8.9 | 10.0 | 9.4 |
| 11/17/2011 | 7 | N/A | 9.3 | 8.5 | 7.7 | 9.2 | 8.9 | 9.9 | 9.4 |
| 11/17/2011 | 8 | N/A | 9.2 | 8.4 | 7.7 | 9.2 | 8.9 | 9.9 | 9.3 |
| 11/17/2011 | 9 | N/A | 9.2 | 8.5 | 7.6 | 9.2 | 8.9 | 9.9 | 9.3 |
| 11/17/2011 | 10 | N/A | 9.2 | 8.6 | 7.7 | 9.2 | 9.0 | 9.9 | 9.3 |
| 11/17/2011 | 11 | N/A | 9.3 | 9.1 | 7.9 | 9.3 | 9.0 | 9.9 | 9.4 |
| 11/17/2011 | 12 | N/A | 9.3 | 9.5 | 8.0 | 9.3 | 9.1 | 10.0 | 9.4 |
| 11/17/2011 | 13 | N/A | 9.3 | 9.9 | 8.1 | 9.3 | 9.2 | 10.0 | 9.5 |
| 11/17/2011 | 14 | N/A | 9.4 | 10.1 | 8.2 | 9.5 | 9.3 | 10.0 | 9.5 |
| 11/17/2011 | 15 | N/A | 9.5 | 10.1 | 8.6 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/17/2011 | 16 | N/A | 9.5 | 9.9 | 9.0 | 9.6 | 9.5 | 10.1 | 9.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/17/2011 | 17 | N/A | 9.5 | 9.7 | 9.3 | 9.7 | 9.5 | 10.1 | 9.6 |
| 11/17/2011 | 18 | N/A | 9.5 | 9.4 | 9.3 | 9.7 | 9.5 | 10.1 | 9.6 |
| 11/17/2011 | 19 | N/A | 9.5 | 9.3 | 9.1 | 9.6 | 9.5 | 10.1 | 9.6 |
| 11/17/2011 | 20 | N/A | 9.5 | 9.2 | 9.0 | 9.6 | 9.5 | 10.1 | 9.6 |
| 11/17/2011 | 21 | N/A | 9.5 | 9.3 | 8.9 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/17/2011 | 22 | N/A | 9.5 | 9.3 | 8.7 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/17/2011 | 23 | N/A | 9.5 | 9.2 | 8.7 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/17/2011 | 24 | N/A | 9.5 | 9.2 | 8.6 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/18/2011 | 1 | N/A | 9.5 | 9.2 | 8.6 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/18/2011 | 2 | N/A | 9.5 | 9.2 | 8.6 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/18/2011 | 3 | N/A | 9.5 | 9.2 | 8.6 | 9.5 | 9.4 | 10.1 | 9.6 |
| 11/18/2011 | 4 | N/A | 9.5 | 9.2 | 8.6 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/18/2011 | 5 | N/A | 9.5 | 9.2 | 8.6 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/18/2011 | 6 | N/A | 9.5 | 9.2 | 8.6 | 9.5 | 9.4 | 10.1 | 9.6 |
| 11/18/2011 | 7 | N/A | 9.5 | 9.2 | 8.6 | 9.5 | 9.4 | 10.1 | 9.6 |
| 11/18/2011 | 8 | N/A | 9.5 | 9.2 | 8.6 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/18/2011 | 9 | N/A | 9.5 | 9.2 | 8.6 | 9.6 | 9.4 | 10.2 | 9.6 |
| 11/18/2011 | 10 | N/A | 9.5 | 9.3 | 8.6 | 9.6 | 9.4 | 10.2 | 9.6 |
| 11/18/2011 | 11 | N/A | 9.6 | 9.6 | 8.7 | 9.6 | 9.5 | 10.2 | 9.7 |
| 11/18/2011 | 12 | N/A | 9.7 | 9.7 | 8.8 | 9.7 | 9.5 | 10.2 | 9.7 |
| 11/18/2011 | 13 | N/A | 9.7 | 10.0 | 8.9 | 9.8 | 9.7 | 10.3 | 9.8 |
| 11/18/2011 | 14 | N/A | 9.7 | 10.0 | 9.0 | 9.8 | 9.7 | 10.3 | 9.8 |
| 11/18/2011 | 15 | N/A | 9.7 | 10.0 | 9.1 | 9.8 | 9.7 | 10.3 | 9.8 |
| 11/18/2011 | 16 | N/A | 9.7 | 9.7 | 9.3 | 9.9 | 9.7 | 10.3 | 9.9 |
| 11/18/2011 | 17 | N/A | 9.7 | 9.5 | 9.3 | 9.9 | 9.7 | 10.4 | 9.9 |
| 11/18/2011 | 18 | N/A | 9.7 | 9.2 | 9.3 | 9.9 | 9.7 | 10.4 | 9.9 |
| 11/18/2011 | 19 | N/A | 9.7 | 9.1 | 9.1 | 9.9 | 9.7 | 10.4 | 9.9 |
| 11/18/2011 | 20 | N/A | 9.7 | 9.0 | 8.9 | 9.8 | 9.6 | 10.3 | 9.9 |
| 11/18/2011 | 21 | N/A | 9.7 | 8.9 | 8.6 | 9.8 | 9.5 | 10.3 | 9.8 |
| 11/18/2011 | 22 | N/A | 9.7 | 8.9 | 8.5 | 9.7 | 9.5 | 10.3 | 9.8 |
| 11/18/2011 | 23 | N/A | 9.6 | 8.8 | 8.3 | 9.7 | 9.4 | 10.3 | 9.8 |
| 11/18/2011 | 24 | N/A | 9.6 | 8.8 | 8.2 | 9.6 | 9.4 | 10.3 | 9.8 |
| 11/19/2011 | 1 | N/A | 9.6 | 8.7 | 8.2 | 9.6 | 9.4 | 10.2 | 9.7 |
| 11/19/2011 | 2 | N/A | 9.6 | 8.8 | 8.1 | 9.6 | 9.3 | 10.2 | 9.7 |
| 11/19/2011 | 3 | N/A | 9.6 | 8.9 | 8.0 | 9.5 | 9.3 | 10.2 | 9.7 |
| 11/19/2011 | 4 | N/A | 9.5 | 8.9 | 8.0 | 9.5 | 9.3 | 10.2 | 9.6 |
| 11/19/2011 | 5 | N/A | 9.5 | 8.9 | 8.1 | 9.5 | 9.3 | 10.2 | 9.6 |
| 11/19/2011 | 6 | N/A | 9.5 | 9.0 | 8.1 | 9.5 | 9.3 | 10.2 | 9.6 |
| 11/19/2011 | 7 | N/A | 9.5 | 8.9 | 8.1 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/19/2011 | 8 | N/A | 9.5 | 8.9 | 8.2 | 9.5 | 9.3 | 10.1 | 9.7 |
| 11/19/2011 | 9 | N/A | 9.5 | 9.0 | 8.2 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/19/2011 | 10 | N/A | 9.5 | 9.0 | 8.2 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/19/2011 | 11 | N/A | 9.5 | 9.1 | 8.3 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/19/2011 | 12 | N/A | 9.5 | 9.2 | 8.3 | 9.4 | 9.2 | 10.1 | 9.5 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/19/2011 | 13 | N/A | 9.5 | 9.3 | 8.4 | 9.4 | 9.2 | 10.1 | 9.5 |
| 11/19/2011 | 14 | N/A | 9.4 | 9.4 | 8.4 | 9.4 | 9.3 | 10.1 | 9.5 |
| 11/19/2011 | 15 | N/A | 9.5 | 9.6 | 8.6 | 9.5 | 9.4 | 10.1 | 9.5 |
| 11/19/2011 | 16 | N/A | 9.5 | 9.5 | 8.6 | 9.5 | 9.3 | 10.1 | 9.6 |
| 11/19/2011 | 17 | N/A | 9.5 | 9.4 | 8.7 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/19/2011 | 18 | N/A | 9.5 | 9.2 | 8.7 | 9.6 | 9.4 | 10.2 | 9.6 |
| 11/19/2011 | 19 | N/A | 9.5 | 8.9 | 8.7 | 9.6 | 9.4 | 10.1 | 9.7 |
| 11/19/2011 | 20 | N/A | 9.4 | 8.8 | 8.6 | 9.6 | 9.4 | 10.1 | 9.7 |
| 11/19/2011 | 21 | N/A | 9.5 | 8.7 | 8.4 | 9.6 | 9.4 | 10.1 | 9.7 |
| 11/19/2011 | 22 | N/A | 9.5 | 8.6 | 8.2 | 9.6 | 9.3 | 10.1 | 9.7 |
| 11/19/2011 | 23 | N/A | 9.5 | 8.5 | 8.1 | 9.5 | 9.3 | 10.1 | 9.7 |
| 11/19/2011 | 24 | N/A | 9.5 | 8.5 | 8.0 | 9.5 | 9.2 | 10.1 | 9.7 |
| 11/20/2011 | 1 | N/A | 9.4 | 8.5 | 7.8 | 9.5 | 9.2 | 10.1 | 9.6 |
| 11/20/2011 | 2 | N/A | 9.4 | 8.4 | 7.7 | 9.4 | 9.1 | 10.1 | 9.6 |
| 11/20/2011 | 3 | N/A | 9.4 | 8.4 | 7.7 | 9.4 | 9.1 | 10.0 | 9.5 |
| 11/20/2011 | 4 | N/A | 9.4 | 8.4 | 7.6 | 9.3 | 9.1 | 10.0 | 9.5 |
| 11/20/2011 | 5 | N/A | 9.3 | 8.4 | 7.6 | 9.3 | 9.0 | 10.0 | 9.5 |
| 11/20/2011 | 6 | N/A | 9.3 | 8.5 | 7.6 | 9.3 | 9.0 | 9.9 | 9.4 |
| 11/20/2011 | 7 | N/A | 9.2 | 8.4 | 7.6 | 9.2 | 8.9 | 9.9 | 9.4 |
| 11/20/2011 | 8 | N/A | 9.2 | 8.4 | 7.6 | 9.2 | 8.9 | 9.8 | 9.3 |
| 11/20/2011 | 9 | N/A | 9.1 | 8.3 | 7.6 | 9.1 | 8.8 | 9.8 | 9.3 |
| 11/20/2011 | 10 | N/A | 9.1 | 8.3 | 7.6 | 9.1 | 8.8 | 9.8 | 9.3 |
| 11/20/2011 | 11 | N/A | 9.1 | 8.4 | 7.5 | 9.1 | 8.8 | 9.8 | 9.2 |
| 11/20/2011 | 12 | N/A | 9.1 | 8.4 | 7.5 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 13 | N/A | 9.1 | 8.5 | 7.5 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 14 | N/A | 9.1 | 8.6 | 7.6 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 15 | N/A | 9.0 | 8.7 | 7.6 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 16 | N/A | 9.0 | 8.6 | 7.7 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 17 | N/A | 9.0 | 8.5 | 7.7 | 9.1 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 18 | N/A | 9.0 | 8.4 | 7.8 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 19 | N/A | 9.0 | 8.4 | 7.7 | 9.0 | 8.8 | 9.7 | 9.1 |
| 11/20/2011 | 20 | N/A | 9.0 | 8.3 | 7.7 | 9.0 | 8.8 | 9.7 | 9.1 |
| 11/20/2011 | 21 | N/A | 9.0 | 8.4 | 7.7 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 22 | N/A | 9.0 | 8.4 | 7.6 | 9.1 | 8.8 | 9.7 | 9.2 |
| 11/20/2011 | 23 | N/A | 9.0 | 8.4 | 7.6 | 9.1 | 8.8 | 9.8 | 9.2 |
| 11/20/2011 | 24 | N/A | 9.1 | 8.4 | 7.6 | 9.1 | 8.9 | 9.8 | 9.3 |
| 11/21/2011 | 1 | N/A | 9.1 | 8.4 | 7.6 | 9.1 | 8.9 | 9.8 | 9.3 |
| 11/21/2011 | 2 | N/A | 9.1 | 8.4 | 7.6 | 9.1 | 8.9 | 9.8 | 9.3 |
| 11/21/2011 | 3 | N/A | 9.1 | 8.3 | 7.6 | 9.1 | 8.9 | 9.8 | 9.3 |
| 11/21/2011 | 4 | N/A | 9.1 | 8.3 | 7.6 | 9.1 | 8.9 | 9.8 | 9.3 |
| 11/21/2011 | 5 | N/A | 9.1 | 8.3 | 7.6 | 9.1 | 8.8 | 9.7 | 9.2 |
| 11/21/2011 | 6 | N/A | 9.1 | 8.3 | 7.5 | 9.0 | 8.8 | 9.7 | 9.2 |
| 11/21/2011 | 7 | N/A | 9.0 | 8.3 | 7.5 | 9.0 | 8.7 | 9.7 | 9.1 |
| 11/21/2011 | 8 | N/A | 9.0 | 8.3 | 7.5 | 9.0 | 8.7 | 9.7 | 9.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/21/2011 | 9 | N/A | 9.0 | 8.3 | 7.4 | 8.9 | 8.7 | 9.6 | 9.1 |
| 11/21/2011 | 10 | N/A | 8.9 | 8.2 | 7.4 | 8.9 | 8.6 | 9.6 | 9.0 |
| 11/21/2011 | 11 | N/A | 9.0 | 8.4 | 7.5 | 8.9 | 8.7 | 9.6 | 9.0 |
| 11/21/2011 | 12 | N/A | 9.0 | 8.6 | 7.6 | 8.9 | 8.7 | 9.6 | 9.0 |
| 11/21/2011 | 13 | N/A | 9.0 | 9.0 | 7.7 | 8.9 | 8.7 | 9.6 | 9.0 |
| 11/21/2011 | 14 | N/A | 9.0 | 9.4 | 7.7 | 8.9 | 8.8 | 9.6 | 9.0 |
| 11/21/2011 | 15 | N/A | 9.0 | 9.6 | 7.9 | 9.0 | 8.8 | 9.6 | 9.0 |
| 11/21/2011 | 16 | N/A | 9.0 | 9.4 | 8.2 | 9.0 | 8.8 | 9.6 | 9.0 |
| 11/21/2011 | 17 | N/A | 8.9 | 9.1 | 8.5 | 9.1 | 8.9 | 9.6 | 9.0 |
| 11/21/2011 | 18 | N/A | 8.9 | 8.9 | 8.7 | 9.0 | 8.9 | 9.5 | 9.0 |
| 11/21/2011 | 19 | N/A | 8.9 | 8.7 | 8.6 | 9.0 | 8.9 | 9.5 | 8.9 |
| 11/21/2011 | 20 | N/A | 8.9 | 8.6 | 8.4 | 8.9 | 8.8 | 9.5 | 8.9 |
| 11/21/2011 | 21 | N/A | 8.8 | 8.6 | 8.2 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/21/2011 | 22 | N/A | 8.8 | 8.5 | 8.1 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/21/2011 | 23 | N/A | 8.8 | 8.5 | 8.0 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/21/2011 | 24 | N/A | 8.8 | 8.5 | 8.0 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/22/2011 | 1 | N/A | 8.8 | 8.5 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 2 | N/A | 8.8 | 8.6 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 3 | N/A | 8.8 | 8.5 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 4 | N/A | 8.8 | 8.6 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 5 | N/A | 8.9 | 8.6 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 6 | N/A | 8.9 | 8.6 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 7 | N/A | 8.9 | 8.6 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 8 | N/A | 8.9 | 8.6 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 9 | N/A | 8.9 | 8.6 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 10 | N/A | 8.9 | 8.7 | 8.0 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 11 | N/A | 8.9 | 8.8 | 8.0 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/22/2011 | 12 | N/A | 9.0 | 9.1 | 8.1 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/22/2011 | 13 | N/A | 9.0 | 9.3 | 8.3 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/22/2011 | 14 | N/A | 9.0 | 9.4 | 8.4 | 9.0 | 8.9 | 9.6 | 9.0 |
| 11/22/2011 | 15 | N/A | 9.0 | 9.5 | 8.6 | 9.1 | 8.9 | 9.6 | 9.0 |
| 11/22/2011 | 16 | N/A | 9.0 | 9.5 | 8.7 | 9.1 | 9.0 | 9.6 | 9.0 |
| 11/22/2011 | 17 | N/A | 9.0 | 9.4 | 8.8 | 9.1 | 9.0 | 9.6 | 9.1 |
| 11/22/2011 | 18 | N/A | 9.0 | 9.3 | 8.9 | 9.2 | 9.0 | 9.6 | 9.1 |
| 11/22/2011 | 19 | N/A | 9.1 | 9.3 | 8.9 | 9.2 | 9.1 | 9.7 | 9.1 |
| 11/22/2011 | 20 | N/A | 9.1 | 9.2 | 8.9 | 9.2 | 9.1 | 9.7 | 9.2 |
| 11/22/2011 | 21 | N/A | 9.1 | 9.2 | 8.9 | 9.3 | 9.1 | 9.7 | 9.2 |
| 11/22/2011 | 22 | N/A | 9.2 | 9.2 | 8.8 | 9.3 | 9.2 | 9.8 | 9.3 |
| 11/22/2011 | 23 | N/A | 9.2 | 9.2 | 8.8 | 9.3 | 9.2 | 9.8 | 9.3 |
| 11/22/2011 | 24 | N/A | 9.2 | 9.2 | 8.7 | 9.3 | 9.2 | 9.8 | 9.3 |
| 11/23/2011 | 1 | N/A | 9.3 | 9.2 | 8.7 | 9.3 | 9.2 | 9.8 | 9.3 |
| 11/23/2011 | 2 | N/A | 9.3 | 9.2 | 8.7 | 9.3 | 9.2 | 9.9 | 9.3 |
| 11/23/2011 | 3 | N/A | 9.2 | 9.2 | 8.7 | 9.3 | 9.2 | 9.9 | 9.3 |
| 11/23/2011 | 4 | N/A | 9.3 | 9.3 | 8.7 | 9.3 | 9.2 | 9.9 | 9.3 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/23/2011 | 5 | N/A | 9.3 | 9.3 | 8.8 | 9.4 | 9.2 | 9.9 | 9.3 |
| 11/23/2011 | 6 | N/A | 9.3 | 9.4 | 8.8 | 9.4 | 9.2 | 9.9 | 9.3 |
| 11/23/2011 | 7 | N/A | 9.3 | 9.5 | 8.8 | 9.4 | 9.2 | 9.9 | 9.4 |
| 11/23/2011 | 8 | N/A | 9.3 | 9.5 | 8.9 | 9.4 | 9.3 | 9.9 | 9.4 |
| 11/23/2011 | 9 | N/A | 9.4 | 9.6 | 9.0 | 9.4 | 9.3 | 10.0 | 9.4 |
| 11/23/2011 | 10 | N/A | 9.4 | 9.6 | 9.1 | 9.5 | 9.4 | 10.0 | 9.4 |
| 11/23/2011 | 11 | N/A | 9.4 | 9.7 | 9.2 | 9.5 | 9.4 | 10.0 | 9.4 |
| 11/23/2011 | 12 | N/A | 9.5 | 10.0 | 9.3 | 9.5 | 9.5 | 10.0 | 9.5 |
| 11/23/2011 | 13 | N/A | 9.5 | 10.1 | 9.4 | 9.6 | 9.5 | 10.0 | 9.5 |
| 11/23/2011 | 14 | N/A | 9.6 | 10.3 | 9.5 | 9.6 | 9.5 | 10.0 | 9.5 |
| 11/23/2011 | 15 | N/A | 9.6 | 10.4 | 9.7 | 9.7 | 9.6 | 10.1 | 9.5 |
| 11/23/2011 | 16 | N/A | 9.6 | 10.3 | 9.8 | 9.7 | 9.6 | 10.1 | 9.6 |
| 11/23/2011 | 17 | N/A | 9.6 | 10.2 | 9.9 | 9.7 | 9.7 | 10.1 | 9.6 |
| 11/23/2011 | 18 | N/A | 9.6 | 10.0 | 9.9 | 9.7 | 9.7 | 10.1 | 9.6 |
| 11/23/2011 | 19 | N/A | 9.5 | 9.8 | 9.9 | 9.8 | 9.7 | 10.1 | 9.6 |
| 11/23/2011 | 20 | N/A | 9.6 | 9.6 | 9.8 | 9.7 | 9.7 | 10.1 | 9.6 |
| 11/23/2011 | 21 | N/A | 9.6 | 9.5 | 9.6 | 9.7 | 9.6 | 10.1 | 9.6 |
| 11/23/2011 | 22 | N/A | 9.5 | 9.4 | 9.4 | 9.7 | 9.6 | 10.1 | 9.6 |
| 11/23/2011 | 23 | N/A | 9.5 | 9.3 | 9.2 | 9.6 | 9.5 | 10.1 | 9.6 |
| 11/23/2011 | 24 | N/A | 9.5 | 9.2 | 9.0 | 9.6 | 9.4 | 10.1 | 9.6 |
| 11/24/2011 | 1 | N/A | 9.4 | 9.1 | 8.8 | 9.6 | 9.4 | 10.1 | 9.5 |
| 11/24/2011 | 2 | N/A | 9.4 | 9.0 | 8.7 | 9.5 | 9.3 | 10.0 | 9.5 |
| 11/24/2011 | 3 | N/A | 9.4 | 8.9 | 8.6 | 9.5 | 9.3 | 10.0 | 9.5 |
| 11/24/2011 | 4 | N/A | 9.4 | 8.8 | 8.5 | 9.5 | 9.2 | 10.0 | 9.5 |
| 11/24/2011 | 5 | N/A | 9.3 | 8.7 | 8.3 | 9.4 | 9.2 | 9.9 | 9.5 |
| 11/24/2011 | 6 | N/A | 9.3 | 8.7 | 8.2 | 9.4 | 9.1 | 9.9 | 9.4 |
| 11/24/2011 | 7 | N/A | 9.3 | 8.6 | 8.1 | 9.3 | 9.1 | 9.9 | 9.4 |
| 11/24/2011 | 8 | N/A | 9.2 | 8.6 | 8.0 | 9.3 | 9.0 | 9.9 | 9.3 |
| 11/24/2011 | 9 | N/A | 9.2 | 8.6 | 8.0 | 9.2 | 9.0 | 9.8 | 9.3 |
| 11/24/2011 | 10 | N/A | 9.2 | 8.7 | 8.0 | 9.2 | 9.0 | 9.8 | 9.3 |
| 11/24/2011 | 11 | N/A | 9.2 | 9.0 | 8.0 | 9.2 | 9.0 | 9.8 | 9.2 |
| 11/24/2011 | 12 | N/A | 9.3 | 9.3 | 8.1 | 9.2 | 9.1 | 9.8 | 9.3 |
| 11/24/2011 | 13 | N/A | 9.3 | 9.5 | 8.1 | 9.2 | 9.0 | 9.8 | 9.3 |
| 11/24/2011 | 14 | N/A | 9.3 | 9.6 | 8.3 | 9.2 | 9.0 | 9.8 | 9.2 |
| 11/24/2011 | 15 | N/A | 9.2 | 9.6 | 8.6 | 9.3 | 9.1 | 9.8 | 9.2 |
| 11/24/2011 | 16 | N/A | 9.2 | 9.5 | 8.8 | 9.3 | 9.1 | 9.8 | 9.2 |
| 11/24/2011 | 17 | N/A | 9.2 | 9.4 | 8.9 | 9.3 | 9.2 | 9.8 | 9.2 |
| 11/24/2011 | 18 | N/A | 9.2 | 9.2 | 8.9 | 9.3 | 9.2 | 9.8 | 9.2 |
| 11/24/2011 | 19 | N/A | 9.2 | 9.2 | 8.9 | 9.3 | 9.2 | 9.7 | 9.3 |
| 11/24/2011 | 20 | N/A | 9.2 | 9.1 | 8.8 | 9.3 | 9.2 | 9.7 | 9.3 |
| 11/24/2011 | 21 | N/A | 9.2 | 9.0 | 8.7 | 9.3 | 9.1 | 9.7 | 9.2 |
| 11/24/2011 | 22 | N/A | 9.1 | 8.9 | 8.6 | 9.2 | 9.1 | 9.7 | 9.2 |
| 11/24/2011 | 23 | N/A | 9.1 | 8.8 | 8.5 | 9.2 | 9.0 | 9.7 | 9.2 |
| 11/24/2011 | 24 | N/A | 9.1 | 8.8 | 8.4 | 9.1 | 9.0 | 9.7 | 9.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/25/2011 | 1 | N/A | 9.1 | 8.7 | 8.3 | 9.1 | 8.9 | 9.7 | 9.1 |
| 11/25/2011 | 2 | N/A | 9.0 | 8.6 | 8.2 | 9.1 | 8.9 | 9.6 | 9.1 |
| 11/25/2011 | 3 | N/A | 9.0 | 8.5 | 8.1 | 9.1 | 8.9 | 9.6 | 9.1 |
| 11/25/2011 | 4 | N/A | 9.0 | 8.4 | 8.0 | 9.0 | 8.8 | 9.6 | 9.1 |
| 11/25/2011 | 5 | N/A | 8.9 | 8.4 | 8.0 | 9.0 | 8.7 | 9.6 | 9.0 |
| 11/25/2011 | 6 | N/A | 8.9 | 8.3 | 7.8 | 8.9 | 8.6 | 9.6 | 8.9 |
| 11/25/2011 | 7 | N/A | 8.8 | 8.2 | 7.7 | 8.9 | 8.6 | 9.6 | 8.9 |
| 11/25/2011 | 8 | N/A | 8.8 | 8.1 | 7.6 | 8.9 | 8.6 | 9.6 | 9.0 |
| 11/25/2011 | 9 | N/A | 8.9 | 8.1 | 7.6 | 8.9 | 8.7 | 9.6 | 9.0 |
| 11/25/2011 | 10 | N/A | 8.9 | 8.2 | 7.6 | 8.9 | 8.7 | 9.6 | 9.0 |
| 11/25/2011 | 11 | N/A | 8.9 | 8.6 | 7.7 | 8.9 | 8.7 | 9.6 | 9.0 |
| 11/25/2011 | 12 | N/A | 8.9 | 9.0 | 7.8 | 8.9 | 8.7 | 9.6 | 9.0 |
| 11/25/2011 | 13 | N/A | 8.9 | 9.4 | 7.8 | 9.0 | 8.8 | 9.6 | 9.0 |
| 11/25/2011 | 14 | N/A | 9.0 | 9.5 | 7.9 | 9.0 | 8.9 | 9.6 | 9.1 |
| 11/25/2011 | 15 | N/A | 9.0 | 9.5 | 8.2 | 9.1 | 8.9 | 9.6 | 9.1 |
| 11/25/2011 | 16 | N/A | 9.0 | 9.2 | 8.5 | 9.2 | 9.0 | 9.7 | 9.2 |
| 11/25/2011 | 17 | N/A | 9.0 | 9.0 | 8.8 | 9.2 | 9.0 | 9.7 | 9.1 |
| 11/25/2011 | 18 | N/A | 9.0 | 8.8 | 8.8 | 9.2 | 9.0 | 9.7 | 9.1 |
| 11/25/2011 | 19 | N/A | 9.0 | 8.7 | 8.6 | 9.1 | 9.0 | 9.6 | 9.1 |
| 11/25/2011 | 20 | N/A | 9.0 | 8.6 | 8.5 | 9.1 | 8.9 | 9.6 | 9.1 |
| 11/25/2011 | 21 | N/A | 9.0 | 8.6 | 8.3 | 9.1 | 8.9 | 9.6 | 9.1 |
| 11/25/2011 | 22 | N/A | 9.0 | 8.7 | 8.2 | 9.0 | 8.9 | 9.6 | 9.1 |
| 11/25/2011 | 23 | N/A | 8.9 | 8.7 | 8.1 | 9.0 | 8.8 | 9.6 | 9.0 |
| 11/25/2011 | 24 | N/A | 8.9 | 8.7 | 8.1 | 9.0 | 8.8 | 9.6 | 9.0 |
| 11/26/2011 | 1 | N/A | 8.9 | 8.7 | 8.1 | 9.0 | 8.8 | 9.6 | 9.0 |
| 11/26/2011 | 2 | N/A | 8.9 | 8.7 | 8.1 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/26/2011 | 3 | N/A | 8.9 | 8.7 | 8.1 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/26/2011 | 4 | N/A | 8.9 | 8.7 | 8.1 | 8.9 | 8.8 | 9.5 | 8.9 |
| 11/26/2011 | 5 | N/A | 8.9 | 8.7 | 8.1 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/26/2011 | 6 | N/A | 8.8 | 8.7 | 8.1 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/26/2011 | 7 | N/A | 8.8 | 8.7 | 8.1 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/26/2011 | 8 | N/A | 8.8 | 8.7 | 8.2 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/26/2011 | 9 | N/A | 8.8 | 8.7 | 8.2 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/26/2011 | 10 | N/A | 8.8 | 8.8 | 8.2 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/26/2011 | 11 | N/A | 8.9 | 8.9 | 8.2 | 8.9 | 8.8 | 9.5 | 8.9 |
| 11/26/2011 | 12 | N/A | 8.9 | 9.1 | 8.3 | 9.0 | 8.8 | 9.5 | 8.9 |
| 11/26/2011 | 13 | N/A | 8.9 | 9.4 | 8.4 | 9.0 | 8.9 | 9.6 | 8.9 |
| 11/26/2011 | 14 | N/A | 9.0 | 9.6 | 8.5 | 9.0 | 8.9 | 9.6 | 9.0 |
| 11/26/2011 | 15 | N/A | 9.0 | 9.7 | 8.7 | 9.1 | 9.0 | 9.6 | 9.0 |
| 11/26/2011 | 16 | N/A | 9.0 | 9.5 | 8.9 | 9.1 | 9.0 | 9.6 | 9.1 |
| 11/26/2011 | 17 | N/A | 9.0 | 9.4 | 9.0 | 9.2 | 9.1 | 9.6 | 9.1 |
| 11/26/2011 | 18 | N/A | 9.0 | 9.2 | 9.1 | 9.2 | 9.1 | 9.6 | 9.1 |
| 11/26/2011 | 19 | N/A | 9.0 | 9.0 | 9.0 | 9.2 | 9.1 | 9.6 | 9.1 |
| 11/26/2011 | 20 | N/A | 9.0 | 8.8 | 8.9 | 9.2 | 9.1 | 9.6 | 9.1 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/26/2011 | 21 | N/A | 9.0 | 8.7 | 8.7 | 9.2 | 9.0 | 9.6 | 9.1 |
| 11/26/2011 | 22 | N/A | 9.0 | 8.6 | 8.5 | 9.1 | 9.0 | 9.6 | 9.1 |
| 11/26/2011 | 23 | N/A | 8.9 | 8.6 | 8.4 | 9.0 | 8.9 | 9.5 | 9.0 |
| 11/26/2011 | 24 | N/A | 8.9 | 8.6 | 8.2 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/27/2011 | 1 | N/A | 8.9 | 8.6 | 8.1 | 8.9 | 8.8 | 9.5 | 8.9 |
| 11/27/2011 | 2 | N/A | 8.8 | 8.6 | 8.1 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/27/2011 | 3 | N/A | 8.8 | 8.5 | 8.0 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/27/2011 | 4 | N/A | 8.8 | 8.5 | 8.0 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/27/2011 | 5 | N/A | 8.8 | 8.5 | 8.0 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/27/2011 | 6 | N/A | 8.8 | 8.4 | 8.0 | 8.8 | 8.6 | 9.4 | 8.9 |
| 11/27/2011 | 7 | N/A | 8.7 | 8.4 | 7.9 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/27/2011 | 8 | N/A | 8.7 | 8.4 | 7.9 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/27/2011 | 9 | N/A | 8.7 | 8.3 | 7.8 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/27/2011 | 10 | N/A | 8.8 | 8.4 | 7.8 | 8.8 | 8.6 | 9.4 | 8.9 |
| 11/27/2011 | 11 | N/A | 8.8 | 8.6 | 7.9 | 8.8 | 8.7 | 9.5 | 8.9 |
| 11/27/2011 | 12 | N/A | 8.9 | 8.8 | 7.9 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/27/2011 | 13 | N/A | 8.9 | 9.2 | 8.0 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/27/2011 | 14 | N/A | 8.9 | 9.4 | 8.0 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/27/2011 | 15 | N/A | 9.0 | 9.5 | 8.2 | 9.0 | 8.9 | 9.6 | 9.0 |
| 11/27/2011 | 16 | N/A | 9.0 | 9.4 | 8.6 | 9.1 | 8.9 | 9.6 | 9.0 |
| 11/27/2011 | 17 | N/A | 9.0 | 9.2 | 8.8 | 9.1 | 9.0 | 9.6 | 9.0 |
| 11/27/2011 | 18 | N/A | 9.0 | 9.0 | 8.8 | 9.1 | 9.0 | 9.6 | 9.0 |
| 11/27/2011 | 19 | N/A | 9.0 | 8.9 | 8.8 | 9.1 | 9.0 | 9.6 | 9.0 |
| 11/27/2011 | 20 | N/A | 9.0 | 8.8 | 8.7 | 9.1 | 9.0 | 9.6 | 9.0 |
| 11/27/2011 | 21 | N/A | 8.9 | 8.8 | 8.6 | 9.1 | 8.9 | 9.6 | 9.0 |
| 11/27/2011 | 22 | N/A | 8.9 | 8.7 | 8.4 | 9.0 | 8.9 | 9.6 | 9.0 |
| 11/27/2011 | 23 | N/A | 8.9 | 8.7 | 8.4 | 9.0 | 8.9 | 9.5 | 9.0 |
| 11/27/2011 | 24 | N/A | 8.9 | 8.6 | 8.3 | 9.0 | 8.9 | 9.5 | 9.0 |
| 11/28/2011 | 1 | N/A | 8.9 | 8.6 | 8.2 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/28/2011 | 2 | N/A | 8.9 | 8.5 | 8.2 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/28/2011 | 3 | N/A | 8.9 | 8.4 | 8.1 | 8.9 | 8.8 | 9.5 | 9.0 |
| 11/28/2011 | 4 | N/A | 8.8 | 8.3 | 8.0 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/28/2011 | 5 | N/A | 8.8 | 8.3 | 7.9 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/28/2011 | 6 | N/A | 8.8 | 8.3 | 7.8 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/28/2011 | 7 | N/A | 8.8 | 8.3 | 7.8 | 8.8 | 8.6 | 9.4 | 8.9 |
| 11/28/2011 | 8 | N/A | 8.7 | 8.3 | 7.7 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/28/2011 | 9 | N/A | 8.7 | 8.3 | 7.7 | 8.7 | 8.6 | 9.4 | 8.8 |
| 11/28/2011 | 10 | N/A | 8.7 | 8.4 | 7.8 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/28/2011 | 11 | N/A | 8.8 | 8.6 | 7.8 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/28/2011 | 12 | N/A | 8.8 | 9.0 | 8.0 | 8.8 | 8.7 | 9.4 | 8.8 |
| 11/28/2011 | 13 | N/A | 8.8 | 9.2 | 8.1 | 8.8 | 8.7 | 9.4 | 8.8 |
| 11/28/2011 | 14 | N/A | 8.8 | 9.3 | 8.2 | 8.9 | 8.8 | 9.4 | 8.9 |
| 11/28/2011 | 15 | N/A | 8.8 | 9.4 | 8.4 | 8.9 | 8.8 | 9.4 | 8.9 |
| 11/28/2011 | 16 | N/A | 8.8 | 9.2 | 8.6 | 9.0 | 8.8 | 9.4 | 8.9 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/28/2011 | 17 | N/A | 8.8 | 9.1 | 8.8 | 9.0 | 8.9 | 9.4 | 8.9 |
| 11/28/2011 | 18 | N/A | 8.8 | 8.9 | 8.8 | 9.0 | 8.9 | 9.5 | 8.9 |
| 11/28/2011 | 19 | N/A | 8.8 | 8.7 | 8.7 | 9.0 | 8.9 | 9.5 | 8.9 |
| 11/28/2011 | 20 | N/A | 8.8 | 8.6 | 8.6 | 9.0 | 8.9 | 9.5 | 8.9 |
| 11/28/2011 | 21 | N/A | 8.8 | 8.6 | 8.5 | 9.0 | 8.8 | 9.4 | 8.9 |
| 11/28/2011 | 22 | N/A | 8.8 | 8.5 | 8.3 | 8.9 | 8.8 | 9.4 | 8.9 |
| 11/28/2011 | 23 | N/A | 8.8 | 8.4 | 8.1 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/28/2011 | 24 | N/A | 8.8 | 8.4 | 8.1 | 8.9 | 8.7 | 9.4 | 8.9 |
| 11/29/2011 | 1 | N/A | 8.8 | 8.4 | 8.0 | 8.8 | 8.7 | 9.4 | 8.9 |
| 11/29/2011 | 2 | N/A | 8.8 | 8.4 | 7.9 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/29/2011 | 3 | N/A | 8.8 | 8.4 | 7.9 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/29/2011 | 4 | N/A | 8.7 | 8.4 | 7.9 | 8.8 | 8.6 | 9.3 | 8.8 |
| 11/29/2011 | 5 | N/A | 8.7 | 8.5 | 7.9 | 8.7 | 8.6 | 9.3 | 8.8 |
| 11/29/2011 | 6 | N/A | 8.7 | 8.5 | 7.9 | 8.7 | 8.5 | 9.3 | 8.7 |
| 11/29/2011 | 7 | N/A | 8.7 | 8.5 | 7.9 | 8.7 | 8.6 | 9.3 | 8.8 |
| 11/29/2011 | 8 | N/A | 8.7 | 8.5 | 7.9 | 8.7 | 8.6 | 9.3 | 8.7 |
| 11/29/2011 | 9 | N/A | 8.7 | 8.5 | 8.0 | 8.7 | 8.6 | 9.3 | 8.7 |
| 11/29/2011 | 10 | N/A | 8.7 | 8.6 | 8.0 | 8.7 | 8.6 | 9.3 | 8.8 |
| 11/29/2011 | 11 | N/A | 8.8 | 8.7 | 8.1 | 8.8 | 8.6 | 9.3 | 8.7 |
| 11/29/2011 | 12 | N/A | 8.8 | 9.0 | 8.3 | 8.8 | 8.7 | 9.3 | 8.8 |
| 11/29/2011 | 13 | N/A | 8.8 | 9.2 | 8.3 | 8.9 | 8.8 | 9.4 | 8.8 |
| 11/29/2011 | 14 | 8.9 | 8.9 | 9.3 | 8.4 | 8.9 | 8.8 | 9.4 | 8.9 |
| 11/29/2011 | 15 | 8.9 | 8.9 | 9.4 | 8.6 | 9.0 | 8.9 | 9.4 | 9.0 |
| 11/29/2011 | 16 | 9.0 | 8.9 | 9.3 | 8.8 | 9.1 | 8.9 | 9.5 | 9.0 |
| 11/29/2011 | 17 | 9.0 | 8.9 | 9.2 | 8.9 | 9.1 | 9.0 | 9.5 | 9.0 |
| 11/29/2011 | 18 | 9.0 | 8.9 | 9.0 | 8.9 | 9.1 | 9.0 | 9.5 | 9.0 |
| 11/29/2011 | 19 | 9.0 | 8.9 | 8.8 | 8.8 | 9.1 | 8.9 | 9.6 | 9.0 |
| 11/29/2011 | 20 | 9.0 | 8.9 | 8.6 | 8.7 | 9.1 | 8.9 | 9.6 | 9.0 |
| 11/29/2011 | 21 | 9.0 | 8.9 | 8.5 | 8.5 | 9.1 | 8.9 | 9.5 | 9.0 |
| 11/29/2011 | 22 | 9.0 | 8.9 | 8.4 | 8.3 | 9.0 | 8.9 | 9.5 | 9.0 |
| 11/29/2011 | 23 | 9.0 | 8.9 | 8.3 | 8.1 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/29/2011 | 24 | 9.0 | 8.9 | 8.3 | 8.0 | 9.0 | 8.8 | 9.5 | 9.0 |
| 11/30/2011 | 1 | 8.9 | 8.9 | 8.4 | 7.9 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/30/2011 | 2 | 8.9 | 8.9 | 8.4 | 7.8 | 8.9 | 8.7 | 9.5 | 9.0 |
| 11/30/2011 | 3 | 8.9 | 8.8 | 8.4 | 7.8 | 8.9 | 8.7 | 9.5 | 8.9 |
| 11/30/2011 | 4 | 8.9 | 8.8 | 8.3 | 7.8 | 8.8 | 8.6 | 9.4 | 8.9 |
| 11/30/2011 | 5 | 8.8 | 8.8 | 8.3 | 7.8 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/30/2011 | 6 | 8.8 | 8.7 | 8.2 | 7.8 | 8.8 | 8.6 | 9.4 | 8.8 |
| 11/30/2011 | 7 | 8.7 | 8.7 | 8.1 | 7.7 | 8.7 | 8.5 | 9.3 | 8.8 |
| 11/30/2011 | 8 | 8.7 | 8.6 | 8.0 | 7.6 | 8.7 | 8.5 | 9.3 | 8.7 |
| 11/30/2011 | 9 | 8.7 | 8.6 | 8.0 | 7.6 | 8.6 | 8.4 | 9.2 | 8.7 |
| 11/30/2011 | 10 | 8.6 | 8.5 | 8.0 | 7.5 | 8.6 | 8.4 | 9.2 | 8.6 |
| 11/30/2011 | 11 | 8.6 | 8.5 | 8.3 | 7.6 | 8.6 | 8.4 | 9.2 | 8.6 |
| 11/30/2011 | 12 | 8.6 | 8.5 | 8.6 | 7.6 | 8.6 | 8.4 | 9.2 | 8.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 11/30/2011 | 13 | 8.7 | 8.6 | 8.9 | 7.6 | 8.6 | 8.5 | 9.2 | 8.6 |
| 11/30/2011 | 14 | 8.7 | 8.6 | 9.1 | 7.7 | 8.7 | 8.5 | 9.2 | 8.7 |
| 11/30/2011 | 15 | 8.7 | 8.6 | 9.2 | 8.0 | 8.7 | 8.6 | 9.3 | 8.7 |
| 11/30/2011 | 16 | 8.7 | 8.6 | 9.0 | 8.3 | 8.8 | 8.7 | 9.3 | 8.8 |
| 11/30/2011 | 17 | 8.8 | 8.6 | 8.7 | 8.6 | 8.9 | 8.7 | 9.3 | 8.8 |
| 11/30/2011 | 18 | 8.8 | 8.6 | 8.5 | 8.6 | 8.9 | 8.7 | 9.3 | 8.8 |
| 11/30/2011 | 19 | 8.8 | 8.6 | 8.3 | 8.4 | 8.8 | 8.7 | 9.3 | 8.8 |
| 11/30/2011 | 20 | 8.7 | 8.6 | 8.2 | 8.2 | 8.8 | 8.6 | 9.3 | 8.8 |
| 11/30/2011 | 21 | 8.7 | 8.6 | 8.1 | 8.0 | 8.7 | 8.6 | 9.3 | 8.7 |
| 11/30/2011 | 22 | 8.7 | 8.6 | 8.1 | 7.8 | 8.7 | 8.5 | 9.2 | 8.7 |
| 11/30/2011 | 23 | 8.7 | 8.5 | 8.0 | 7.6 | 8.7 | 8.4 | 9.2 | 8.7 |
| 11/30/2011 | 24 | 8.6 | 8.5 | 7.9 | 7.5 | 8.6 | 8.4 | 9.2 | 8.7 |
| 12/1/2011 | 1 | 8.6 | 8.5 | 7.8 | 7.4 | 8.6 | 8.3 | 9.2 | 8.6 |
| 12/1/2011 | 2 | 8.6 | 8.4 | 7.8 | 7.3 | 8.5 | 8.3 | 9.1 | 8.6 |
| 12/1/2011 | 3 | 8.5 | 8.4 | 7.7 | 7.3 | 8.5 | 8.2 | 9.1 | 8.5 |
| 12/1/2011 | 4 | 8.5 | 8.4 | 7.7 | 7.2 | 8.4 | 8.2 | 9.1 | 8.5 |
| 12/1/2011 | 5 | 8.5 | 8.3 | 7.6 | 7.1 | 8.4 | 8.2 | 9.1 | 8.5 |
| 12/1/2011 | 6 | 8.4 | 8.3 | 7.6 | 7.0 | 8.3 | 8.1 | 9.0 | 8.4 |
| 12/1/2011 | 7 | 8.4 | 8.3 | 7.5 | 7.0 | 8.3 | 8.1 | 9.0 | 8.4 |
| 12/1/2011 | 8 | 8.4 | 8.2 | 7.5 | 6.9 | 8.2 | 8.0 | 9.0 | 8.3 |
| 12/1/2011 | 9 | 8.3 | 8.2 | 7.5 | 6.9 | 8.2 | 8.0 | 9.0 | 8.3 |
| 12/1/2011 | 10 | 8.3 | 8.2 | 7.5 | 6.9 | 8.2 | 7.9 | 9.0 | 8.3 |
| 12/1/2011 | 11 | 8.4 | 8.2 | 7.8 | 7.0 | 8.3 | 7.9 | 9.0 | 8.3 |
| 12/1/2011 | 12 | 8.4 | 8.3 | 8.2 | 7.1 | 8.3 | 7.8 | 9.0 | 8.4 |
| 12/1/2011 | 13 | 8.4 | 8.4 | 8.5 | 7.2 | 8.2 | 7.7 | 9.0 | 8.4 |
| 12/1/2011 | 14 | 8.4 | 8.4 | 8.7 | 7.1 | 7.4 | 7.3 | 9.0 | 8.4 |
| 12/1/2011 | 15 | 8.5 | 8.4 | 8.7 | 7.4 | 7.7 | 7.4 | 9.0 | 8.5 |
| 12/1/2011 | 16 | 8.5 | 8.4 | 8.6 | 7.6 | 8.0 | 7.6 | 9.0 | 8.5 |
| 12/1/2011 | 17 | 8.5 | 8.4 | 8.5 | 7.8 | 8.1 | 7.9 | 9.1 | 8.6 |
| 12/1/2011 | 18 | 8.5 | 8.4 | 8.3 | 7.8 | 8.2 | 8.0 | 9.1 | 8.5 |
| 12/1/2011 | 19 | 8.5 | 8.4 | 8.1 | 7.7 | 8.1 | 7.9 | 9.1 | 8.5 |
| 12/1/2011 | 20 | 8.5 | 8.4 | 8.0 | 7.6 | 7.9 | 7.8 | 9.0 | 8.5 |
| 12/1/2011 | 21 | 8.5 | 8.3 | 7.9 | 7.5 | 7.8 | 7.6 | 9.0 | 8.5 |
| 12/1/2011 | 22 | 8.4 | 8.3 | 7.9 | 7.3 | 7.6 | 7.5 | 9.0 | 8.5 |
| 12/1/2011 | 23 | 8.4 | 8.3 | 7.8 | 7.2 | 7.5 | 7.3 | 8.9 | 8.4 |
| 12/1/2011 | 24 | 8.4 | 8.3 | 7.7 | 7.0 | 7.4 | 7.2 | 8.9 | 8.4 |
| 12/2/2011 | 1 | 8.3 | 8.2 | 7.6 | 6.9 | 7.3 | 7.0 | 8.9 | 8.3 |
| 12/2/2011 | 2 | 8.3 | 8.2 | 7.5 | 6.8 | 7.2 | 7.0 | 8.8 | 8.3 |
| 12/2/2011 | 3 | 8.2 | 8.1 | 7.5 | 6.7 | 7.1 | 6.9 | 8.8 | 8.2 |
| 12/2/2011 | 4 | 8.2 | 8.1 | 7.4 | 6.6 | 7.0 | 6.8 | 8.8 | 8.2 |
| 12/2/2011 | 5 | 8.1 | 8.0 | 7.4 | 6.5 | 6.9 | 6.7 | 8.7 | 8.1 |
| 12/2/2011 | 6 | 8.1 | 8.0 | 7.3 | 6.5 | 6.8 | 6.6 | 8.7 | 8.1 |
| 12/2/2011 | 7 | 8.1 | 7.9 | 7.3 | 6.4 | 6.7 | 6.5 | 8.6 | 8.0 |
| 12/2/2011 | 8 | 8.0 | 7.8 | 7.2 | 6.3 | 6.7 | 6.4 | 8.6 | 8.0 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/2/2011 | 9 | 7.9 | 7.8 | 7.2 | 6.3 | 6.6 | 6.4 | 8.6 | 8.0 |
| 12/2/2011 | 10 | 7.9 | 7.8 | 7.2 | 6.3 | 6.6 | 6.4 | 8.5 | 7.9 |
| 12/2/2011 | 11 | 7.9 | 7.8 | 7.5 | 6.8 | 6.7 | 6.5 | 8.5 | 7.9 |
| 12/2/2011 | 12 | 7.9 | 7.8 | 7.9 | 7.1 | 6.7 | 6.7 | 8.5 | 7.9 |
| 12/2/2011 | 13 | 7.9 | 7.8 | 8.2 | 6.8 | 6.8 | 6.8 | 8.6 | 7.9 |
| 12/2/2011 | 14 | 8.0 | 7.9 | 8.5 | 6.8 | 6.9 | 6.9 | 8.6 | 8.0 |
| 12/2/2011 | 15 | 8.0 | 7.9 | 8.5 | 6.9 | 7.3 | 7.1 | 8.6 | 8.0 |
| 12/2/2011 | 16 | 8.1 | 7.9 | 8.3 | 7.3 | 7.6 | 7.3 | 8.6 | 8.1 |
| 12/2/2011 | 17 | 8.1 | 7.9 | 8.1 | 7.5 | 7.9 | 7.5 | 8.7 | 8.1 |
| 12/2/2011 | 18 | 8.1 | 7.9 | 7.9 | 7.5 | 7.9 | 7.7 | 8.7 | 8.1 |
| 12/2/2011 | 19 | 8.1 | 7.9 | 7.7 | 7.4 | 7.8 | 7.6 | 8.7 | 8.1 |
| 12/2/2011 | 20 | 8.1 | 7.9 | 7.6 | 7.2 | 7.6 | 7.4 | 8.7 | 8.1 |
| 12/2/2011 | 21 | 8.1 | 7.9 | 7.5 | 7.0 | 7.3 | 7.2 | 8.7 | 8.1 |
| 12/2/2011 | 22 | 8.1 | 7.9 | 7.4 | 6.8 | 7.1 | 7.0 | 8.7 | 8.1 |
| 12/2/2011 | 23 | 8.1 | 7.9 | 7.4 | 6.7 | 7.0 | 6.9 | 8.7 | 8.1 |
| 12/2/2011 | 24 | 8.1 | 7.9 | 7.4 | 6.6 | 6.9 | 6.8 | 8.6 | 8.1 |
| 12/3/2011 | 1 | 8.1 | 7.9 | 7.5 | 6.6 | 6.8 | 6.7 | 8.6 | 8.1 |
| 12/3/2011 | 2 | 8.0 | 7.9 | 7.5 | 6.5 | 6.8 | 6.6 | 8.6 | 8.0 |
| 12/3/2011 | 3 | 8.0 | 7.9 | 7.5 | 6.6 | 6.8 | 6.6 | 8.6 | 8.0 |
| 12/3/2011 | 4 | 8.0 | 7.9 | 7.6 | 6.6 | 6.9 | 6.7 | 8.7 | 8.0 |
| 12/3/2011 | 5 | 8.0 | 7.9 | 7.6 | 6.6 | 6.9 | 6.7 | 8.7 | 8.0 |
| 12/3/2011 | 6 | 8.0 | 7.9 | 7.5 | 6.6 | 6.9 | 6.7 | 8.7 | 8.0 |
| 12/3/2011 | 7 | 8.0 | 7.8 | 7.5 | 6.6 | 6.9 | 6.7 | 8.8 | 8.0 |
| 12/3/2011 | 8 | 8.0 | 7.8 | 7.4 | 6.6 | 6.9 | 6.7 | 8.8 | 8.0 |
| 12/3/2011 | 9 | 8.0 | 7.8 | 7.4 | 6.6 | 6.9 | 6.7 | 8.8 | 8.0 |
| 12/3/2011 | 10 | 8.0 | 7.9 | 7.4 | 6.5 | 6.8 | 6.7 | 8.9 | 8.1 |
| 12/3/2011 | 11 | 8.0 | 7.9 | 7.5 | 6.7 | 6.8 | 6.7 | 9.0 | 8.0 |
| 12/3/2011 | 12 | 8.0 | 8.0 | 7.7 | 6.8 | 6.9 | 6.8 | 9.1 | 8.2 |
| 12/3/2011 | 13 | 8.0 | 8.0 | 8.1 | 6.9 | 7.0 | 7.0 | 9.2 | 8.2 |
| 12/3/2011 | 14 | 8.0 | 8.0 | 8.4 | 7.1 | 7.2 | 7.1 | 9.3 | 8.3 |
| 12/3/2011 | 15 | 8.0 | 8.0 | 8.5 | 7.2 | 7.4 | 7.2 | 9.4 | 8.4 |
| 12/3/2011 | 16 | 8.0 | 8.0 | 8.5 | 7.4 | 7.7 | 7.5 | 9.3 | 8.4 |
| 12/3/2011 | 17 | 8.0 | 7.9 | 8.2 | 7.5 | 7.9 | 7.6 | 8.8 | 8.3 |
| 12/3/2011 | 18 | 7.9 | 7.9 | 8.0 | 7.5 | 7.9 | 7.7 | 8.5 | 7.9 |
| 12/3/2011 | 19 | 7.9 | 7.8 | 7.7 | 7.5 | 7.9 | 7.7 | 8.5 | 7.9 |
| 12/3/2011 | 20 | 7.9 | 7.8 | 7.5 | 7.4 | 7.7 | 7.6 | 8.6 | 7.9 |
| 12/3/2011 | 21 | 7.9 | 7.8 | 7.4 | 7.2 | 7.5 | 7.4 | 8.6 | 7.9 |
| 12/3/2011 | 22 | 7.9 | 7.8 | 7.3 | 7.0 | 7.3 | 7.2 | 8.6 | 7.9 |
| 12/3/2011 | 23 | 7.9 | 7.8 | 7.3 | 6.8 | 7.1 | 7.0 | 8.6 | 7.9 |
| 12/3/2011 | 24 | 8.0 | 7.8 | 7.2 | 6.7 | 6.9 | 6.8 | 8.6 | 8.0 |
| 12/4/2011 | 1 | 8.0 | 7.8 | 7.2 | 6.5 | 6.8 | 6.7 | 8.6 | 8.0 |
| 12/4/2011 | 2 | 8.0 | 7.8 | 7.1 | 6.4 | 6.8 | 6.6 | 8.6 | 8.0 |
| 12/4/2011 | 3 | 7.9 | 7.8 | 7.0 | 6.3 | 6.7 | 6.5 | 8.6 | 7.9 |
| 12/4/2011 | 4 | 7.9 | 7.8 | 7.0 | 6.3 | 6.6 | 6.4 | 8.6 | 7.9 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/4/2011 | 5 | 7.8 | 7.7 | 7.0 | 6.2 | 6.6 | 6.3 | 8.6 | 7.8 |
| 12/4/2011 | 6 | 7.8 | 7.7 | 7.0 | 6.2 | 6.5 | 6.3 | 8.6 | 7.8 |
| 12/4/2011 | 7 | 7.8 | 7.7 | 6.9 | 6.1 | 6.4 | 6.2 | 8.6 | 7.8 |
| 12/4/2011 | 8 | 7.8 | 7.6 | 6.9 | 6.1 | 6.4 | 6.2 | 8.6 | 7.7 |
| 12/4/2011 | 9 | 7.7 | 7.6 | 6.9 | 6.0 | 6.4 | 6.2 | 8.6 | 7.7 |
| 12/4/2011 | 10 | 7.7 | 7.6 | 6.9 | 6.1 | 6.4 | 6.2 | 8.7 | 7.7 |
| 12/4/2011 | 11 | 7.7 | 7.6 | 7.1 | 6.5 | 6.4 | 6.3 | 8.8 | 7.9 |
| 12/4/2011 | 12 | 7.7 | 7.6 | 7.5 | 6.8 | 6.5 | 6.4 | 8.9 | 8.1 |
| 12/4/2011 | 13 | 7.7 | 7.7 | 7.9 | 6.6 | 6.6 | 6.6 | 9.0 | 8.1 |
| 12/4/2011 | 14 | 7.7 | 7.7 | 8.1 | 6.5 | 6.7 | 6.7 | 9.1 | 8.2 |
| 12/4/2011 | 15 | 7.7 | 7.7 | 8.1 | 6.7 | 7.0 | 6.9 | 9.1 | 8.2 |
| 12/4/2011 | 16 | 7.7 | 7.7 | 8.0 | 7.1 | 7.4 | 7.1 | 8.8 | 8.2 |
| 12/4/2011 | 17 | 7.7 | 7.6 | 7.8 | 7.3 | 7.7 | 7.4 | 8.3 | 7.7 |
| 12/4/2011 | 18 | 7.7 | 7.6 | 7.6 | 7.4 | 7.7 | 7.5 | 8.3 | 7.7 |
| 12/4/2011 | 19 | 7.7 | 7.6 | 7.4 | 7.2 | 7.6 | 7.4 | 8.3 | 7.7 |
| 12/4/2011 | 20 | 7.7 | 7.6 | 7.3 | 7.1 | 7.4 | 7.3 | 8.4 | 7.7 |
| 12/4/2011 | 21 | 7.7 | 7.6 | 7.2 | 6.9 | 7.2 | 7.1 | 8.4 | 7.7 |
| 12/4/2011 | 22 | 7.7 | 7.6 | 7.1 | 6.7 | 7.0 | 6.9 | 8.4 | 7.8 |
| 12/4/2011 | 23 | 7.8 | 7.6 | 7.0 | 6.6 | 6.9 | 6.7 | 8.4 | 7.8 |
| 12/4/2011 | 24 | 7.8 | 7.6 | 7.0 | 6.4 | 6.8 | 6.6 | 8.4 | 7.8 |
| 12/5/2011 | 1 | 7.8 | 7.6 | 6.9 | 6.3 | 6.7 | 6.5 | 8.5 | 7.8 |
| 12/5/2011 | 2 | 7.8 | 7.6 | 6.9 | 6.3 | 6.6 | 6.4 | 8.4 | 7.8 |
| 12/5/2011 | 3 | 7.7 | 7.6 | 6.8 | 6.2 | 6.5 | 6.3 | 8.4 | 7.8 |
| 12/5/2011 | 4 | 7.7 | 7.6 | 6.8 | 6.1 | 6.5 | 6.3 | 8.4 | 7.8 |
| 12/5/2011 | 5 | 7.7 | 7.6 | 6.8 | 6.0 | 6.4 | 6.2 | 8.4 | 7.7 |
| 12/5/2011 | 6 | 7.7 | 7.5 | 6.8 | 6.0 | 6.3 | 6.1 | 8.4 | 7.7 |
| 12/5/2011 | 7 | 7.7 | 7.5 | 6.7 | 5.9 | 6.3 | 6.1 | 8.4 | 7.7 |
| 12/5/2011 | 8 | 7.7 | 7.5 | 6.7 | 5.9 | 6.2 | 6.0 | 8.4 | 7.7 |
| 12/5/2011 | 9 | 7.7 | 7.5 | 6.6 | 5.8 | 6.2 | 6.0 | 8.4 | 7.6 |
| 12/5/2011 | 10 | 7.7 | 7.5 | 6.6 | 5.9 | 6.2 | 6.0 | 8.6 | 7.6 |
| 12/5/2011 | 11 | 7.7 | 7.5 | 6.9 | 6.4 | 6.3 | 6.1 | 8.8 | 7.6 |
| 12/5/2011 | 12 | 7.7 | 7.5 | 7.2 | 6.6 | 6.3 | 6.2 | 8.8 | 7.8 |
| 12/5/2011 | 13 | 7.7 | 7.6 | 7.5 | 6.3 | 6.3 | 6.3 | 8.8 | 7.8 |
| 12/5/2011 | 14 | N/A | 7.6 | 7.8 | 6.3 | 6.5 | 6.4 | 9.1 | 7.8 |
| 12/5/2011 | 15 | 7.7 | 7.6 | 8.0 | 6.6 | 6.8 | 6.7 | 9.0 | 7.9 |
| 12/5/2011 | 16 | 7.7 | 7.6 | 7.9 | 6.8 | 7.1 | 6.8 | 8.8 | 7.9 |
| 12/5/2011 | 17 | 7.6 | 7.6 | 7.8 | 7.0 | 7.4 | 7.1 | 8.4 | 7.8 |
| 12/5/2011 | 18 | 7.6 | 7.5 | 7.6 | 7.1 | 7.5 | 7.2 | 8.2 | 7.6 |
| 12/5/2011 | 19 | 7.6 | 7.5 | 7.4 | 7.1 | 7.4 | 7.2 | 8.2 | 7.6 |
| 12/5/2011 | 20 | 7.6 | 7.5 | 7.2 | 7.0 | 7.3 | 7.2 | 8.2 | 7.6 |
| 12/5/2011 | 21 | 7.6 | 7.4 | 7.1 | 6.9 | 7.2 | 7.0 | 8.2 | 7.6 |
| 12/5/2011 | 22 | 7.6 | 7.5 | 7.0 | 6.7 | 7.0 | 6.8 | 8.2 | 7.6 |
| 12/5/2011 | 23 | 7.6 | 7.5 | 6.9 | 6.5 | 6.8 | 6.7 | 8.2 | 7.6 |
| 12/5/2011 | 24 | 7.6 | 7.5 | 6.8 | 6.3 | 6.6 | 6.5 | 8.2 | 7.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/6/2011 | 1 | 7.6 | 7.5 | 6.8 | 6.2 | 6.5 | 6.4 | 8.2 | 7.5 |
| 12/6/2011 | 2 | 7.6 | 7.4 | 6.8 | 6.1 | 6.4 | 6.3 | 8.1 | 7.5 |
| 12/6/2011 | 3 | 7.5 | 7.4 | 6.8 | 6.0 | 6.4 | 6.2 | 8.1 | 7.5 |
| 12/6/2011 | 4 | 7.5 | 7.4 | 6.7 | 5.9 | 6.3 | 6.1 | 8.1 | 7.4 |
| 12/6/2011 | 5 | 7.5 | 7.3 | 6.7 | 5.9 | 6.3 | 6.1 | 8.1 | 7.4 |
| 12/6/2011 | 6 | 7.4 | 7.3 | 6.6 | 5.8 | 6.2 | 6.0 | 8.1 | 7.4 |
| 12/6/2011 | 7 | 7.4 | 7.3 | 6.6 | 5.7 | 6.1 | 5.9 | 8.0 | 7.3 |
| 12/6/2011 | 8 | 7.4 | 7.2 | 6.5 | 5.7 | 6.1 | 5.8 | 8.0 | 7.3 |
| 12/6/2011 | 9 | 7.4 | 7.2 | 6.5 | 5.6 | 6.0 | 5.8 | 8.0 | 7.3 |
| 12/6/2011 | 10 | 7.4 | 7.2 | 6.5 | 5.7 | 6.0 | 5.8 | 8.0 | 7.4 |
| 12/6/2011 | 11 | 7.4 | 7.3 | 6.6 | 6.0 | 6.0 | 5.8 | 8.1 | 7.4 |
| 12/6/2011 | 12 | 7.4 | 7.3 | 6.8 | 5.9 | 6.0 | 5.8 | 8.1 | 7.4 |
| 12/6/2011 | 13 | 7.5 | 7.3 | 7.0 | 5.9 | 6.0 | 5.9 | 8.1 | 7.5 |
| 12/6/2011 | 14 | 7.5 | 7.4 | 7.1 | 5.8 | 6.1 | 6.0 | 8.2 | 7.5 |
| 12/6/2011 | 15 | 7.6 | 7.4 | 7.1 | 6.0 | 6.3 | 6.1 | 8.2 | 7.6 |
| 12/6/2011 | 16 | 7.6 | 7.4 | 7.1 | 6.1 | 6.5 | 6.3 | 8.2 | 7.6 |
| 12/6/2011 | 17 | 7.6 | 7.5 | 7.1 | 6.3 | 6.7 | 6.4 | 8.3 | 7.6 |
| 12/6/2011 | 18 | 7.6 | 7.4 | 6.9 | 6.3 | 6.7 | 6.5 | 8.3 | 7.6 |
| 12/6/2011 | 19 | 7.6 | 7.4 | 6.9 | 6.2 | 6.6 | 6.4 | 8.3 | 7.6 |
| 12/6/2011 | 20 | 7.6 | 7.4 | 6.8 | 6.2 | 6.5 | 6.4 | 8.2 | 7.6 |
| 12/6/2011 | 21 | 7.6 | 7.4 | 6.7 | 6.0 | 6.4 | 6.3 | 8.2 | 7.6 |
| 12/6/2011 | 22 | 7.6 | 7.4 | 6.7 | 5.9 | 6.3 | 6.2 | 8.2 | 7.6 |
| 12/6/2011 | 23 | 7.6 | 7.4 | 6.6 | 5.9 | 6.3 | 6.1 | 8.2 | 7.6 |
| 12/6/2011 | 24 | 7.6 | 7.4 | 6.6 | 5.8 | 6.2 | 6.0 | 8.2 | 7.6 |
| 12/7/2011 | 1 | 7.5 | 7.4 | 6.5 | 5.7 | 6.1 | 5.9 | 8.2 | 7.6 |
| 12/7/2011 | 2 | 7.5 | 7.4 | 6.5 | 5.7 | 6.1 | 5.9 | 8.1 | 7.5 |
| 12/7/2011 | 3 | 7.5 | 7.3 | 6.5 | 5.7 | 6.0 | 5.8 | 8.1 | 7.5 |
| 12/7/2011 | 4 | 7.4 | 7.3 | 6.5 | 5.6 | 6.0 | 5.7 | 8.1 | 7.4 |
| 12/7/2011 | 5 | 7.4 | 7.2 | 6.5 | 5.6 | 5.9 | 5.7 | 8.1 | 7.4 |
| 12/7/2011 | 6 | 7.4 | 7.2 | 6.4 | 5.5 | 5.9 | 5.7 | 8.1 | 7.4 |
| 12/7/2011 | 7 | 7.4 | 7.2 | 6.4 | 5.6 | 5.9 | 5.7 | 8.1 | 7.4 |
| 12/7/2011 | 8 | 7.4 | 7.2 | 6.4 | 5.5 | 5.8 | 5.6 | 8.0 | 7.4 |
| 12/7/2011 | 9 | 7.4 | 7.2 | 6.4 | 5.4 | 5.8 | 5.6 | 8.0 | 7.4 |
| 12/7/2011 | 10 | 7.4 | 7.3 | 6.5 | 5.4 | 5.8 | 5.6 | 8.0 | 7.4 |
| 12/7/2011 | 11 | 7.4 | 7.3 | 6.7 | 5.5 | 5.8 | 5.7 | 8.0 | 7.3 |
| 12/7/2011 | 12 | N/A | 7.3 | 6.9 | 5.6 | 5.9 | 5.8 | 8.1 | 7.3 |
| 12/7/2011 | 13 | N/A | 7.3 | 7.2 | 6.0 | 6.2 | 6.0 | 8.1 | 7.4 |
| 12/7/2011 | 14 | N/A | 7.4 | 7.5 | 6.1 | 6.4 | 6.3 | 8.1 | 7.4 |
| 12/7/2011 | 15 | 7.5 | 7.4 | 7.6 | 6.2 | 6.6 | 6.4 | 8.1 | 7.4 |
| 12/7/2011 | 16 | 7.5 | 7.4 | 7.6 | 6.3 | 6.8 | 6.6 | 8.1 | 7.4 |
| 12/7/2011 | 17 | 7.5 | 7.3 | 7.4 | 6.6 | 7.1 | 6.7 | 8.1 | 7.5 |
| 12/7/2011 | 18 | 7.5 | 7.3 | 7.1 | 6.7 | 7.1 | 6.9 | 8.1 | 7.5 |
| 12/7/2011 | 19 | 7.5 | 7.3 | 7.0 | 6.6 | 7.0 | 6.8 | 8.2 | 7.5 |
| 12/7/2011 | 20 | 7.5 | 7.4 | 6.9 | 6.5 | 6.9 | 6.7 | 8.2 | 7.5 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/7/2011 | 21 | 7.6 | 7.4 | 6.8 | 6.3 | 6.7 | 6.6 | 8.2 | 7.5 |
| 12/7/2011 | 22 | 7.6 | 7.4 | 6.9 | 6.3 | 6.6 | 6.5 | 8.2 | 7.5 |
| 12/7/2011 | 23 | 7.6 | 7.5 | 7.0 | 6.2 | 6.5 | 6.4 | 8.2 | 7.6 |
| 12/7/2011 | 24 | 7.6 | 7.5 | 7.1 | 6.1 | 6.5 | 6.3 | 8.3 | 7.6 |
| 12/8/2011 | 1 | 7.7 | 7.5 | 7.1 | 6.1 | 6.5 | 6.3 | 8.3 | 7.6 |
| 12/8/2011 | 2 | 7.7 | 7.6 | 7.1 | 6.2 | 6.6 | 6.4 | 8.3 | 7.7 |
| 12/8/2011 | 3 | 7.7 | 7.6 | 7.1 | 6.3 | 6.7 | 6.5 | 8.3 | 7.7 |
| 12/8/2011 | 4 | 7.7 | 7.6 | 7.1 | 6.3 | 6.7 | 6.5 | 8.2 | 7.6 |
| 12/8/2011 | 5 | 7.6 | 7.6 | 7.1 | 6.4 | 6.7 | 6.6 | 8.2 | 7.6 |
| 12/8/2011 | 6 | 7.6 | 7.5 | 7.1 | 6.4 | 6.7 | 6.5 | 8.2 | 7.6 |
| 12/8/2011 | 7 | 7.6 | 7.5 | 7.1 | 6.4 | 6.7 | 6.5 | 8.2 | 7.6 |
| 12/8/2011 | 8 | 7.6 | 7.5 | 7.1 | 6.3 | 6.7 | 6.5 | 8.2 | 7.6 |
| 12/8/2011 | 9 | 7.5 | 7.4 | 7.0 | 6.2 | 6.6 | 6.4 | 8.2 | 7.5 |
| 12/8/2011 | 10 | 7.5 | 7.4 | 7.0 | 6.2 | 6.6 | 6.4 | 8.2 | 7.5 |
| 12/8/2011 | 11 | N/A | 7.5 | 7.1 | 6.2 | 6.6 | 6.5 | 8.1 | 7.5 |
| 12/8/2011 | 12 | N/A | 7.5 | 7.1 | 6.2 | 6.6 | 6.4 | 8.1 | 7.5 |
| 12/8/2011 | 13 | N/A | 7.5 | 7.2 | 6.3 | 6.6 | 6.5 | 8.1 | 7.5 |
| 12/8/2011 | 14 | N/A | 7.4 | 7.3 | 6.3 | 6.7 | 6.6 | 8.1 | 7.5 |
| 12/8/2011 | 15 | 7.4 | 7.4 | 7.3 | 6.3 | 6.7 | 6.6 | 8.1 | 7.4 |
| 12/8/2011 | 16 | 7.4 | 7.3 | 7.2 | 6.3 | 6.8 | 6.6 | 8.1 | 7.4 |
| 12/8/2011 | 17 | 7.4 | 7.3 | 7.1 | 6.4 | 6.9 | 6.6 | 8.1 | 7.4 |
| 12/8/2011 | 18 | 7.4 | 7.3 | 7.0 | 6.3 | 6.9 | 6.6 | 8.1 | 7.4 |
| 12/8/2011 | 19 | 7.5 | 7.3 | 6.8 | 6.2 | 6.8 | 6.6 | 8.1 | 7.4 |
| 12/8/2011 | 20 | 7.5 | 7.3 | 6.7 | 6.2 | 6.6 | 6.5 | 8.1 | 7.4 |
| 12/8/2011 | 21 | 7.5 | 7.3 | 6.6 | 6.0 | 6.5 | 6.3 | 8.1 | 7.4 |
| 12/8/2011 | 22 | 7.5 | 7.3 | 6.6 | 5.8 | 6.3 | 6.2 | 8.1 | 7.4 |
| 12/8/2011 | 23 | 7.5 | 7.3 | 6.6 | 5.8 | 6.2 | 6.1 | 8.1 | 7.5 |
| 12/8/2011 | 24 | 7.5 | 7.4 | 6.7 | 5.7 | 6.2 | 6.0 | 8.1 | 7.5 |
| 12/9/2011 | 1 | 7.5 | 7.4 | 6.7 | 5.7 | 6.2 | 6.0 | 8.1 | 7.4 |
| 12/9/2011 | 2 | 7.5 | 7.4 | 6.7 | 5.7 | 6.2 | 5.9 | 8.0 | 7.4 |
| 12/9/2011 | 3 | 7.5 | 7.3 | 6.7 | 5.7 | 6.2 | 6.0 | 8.0 | 7.4 |
| 12/9/2011 | 4 | 7.5 | 7.3 | 6.7 | 5.7 | 6.2 | 6.0 | 8.0 | 7.4 |
| 12/9/2011 | 5 | 7.4 | 7.3 | 6.7 | 5.8 | 6.2 | 6.0 | 8.0 | 7.4 |
| 12/9/2011 | 6 | 7.4 | 7.3 | 6.7 | 5.7 | 6.2 | 6.0 | 8.0 | 7.4 |
| 12/9/2011 | 7 | 7.4 | 7.3 | 6.6 | 5.7 | 6.2 | 6.0 | 7.9 | 7.3 |
| 12/9/2011 | 8 | 7.3 | 7.2 | 6.6 | 5.7 | 6.2 | 6.0 | 7.9 | 7.3 |
| 12/9/2011 | 9 | 7.3 | 7.2 | 6.6 | 5.7 | 6.2 | 6.0 | 7.9 | 7.3 |
| 12/9/2011 | 10 | 7.3 | 7.2 | 6.6 | 5.7 | 6.1 | 5.9 | 7.9 | 7.2 |
| 12/9/2011 | 11 | 7.3 | 7.2 | 6.7 | 5.7 | 6.1 | 5.9 | 7.9 | 7.2 |
| 12/9/2011 | 12 | N/A | 7.2 | 6.8 | 5.7 | 6.1 | 6.0 | 7.9 | 7.2 |
| 12/9/2011 | 13 | 7.3 | 7.2 | 6.8 | 5.8 | 6.2 | 6.0 | 7.9 | 7.3 |
| 12/9/2011 | 14 | 7.3 | 7.2 | 7.0 | 5.8 | 6.3 | 6.1 | 7.8 | 7.3 |
| 12/9/2011 | 15 | 7.3 | 7.2 | 7.0 | 5.9 | 6.3 | 6.2 | 7.8 | 7.3 |
| 12/9/2011 | 16 | 7.3 | 7.2 | 7.0 | 5.9 | 6.4 | 6.2 | 7.8 | 7.3 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/9/2011 | 17 | 7.3 | 7.2 | 6.9 | 5.9 | 6.5 | 6.3 | 7.8 | 7.2 |
| 12/9/2011 | 18 | 7.3 | 7.1 | 6.8 | 6.0 | 6.5 | 6.3 | 7.8 | 7.2 |
| 12/9/2011 | 19 | 7.3 | 7.1 | 6.7 | 6.1 | 6.5 | 6.3 | 7.8 | 7.2 |
| 12/9/2011 | 20 | 7.2 | 7.1 | 6.6 | 5.9 | 6.4 | 6.2 | 7.9 | 7.2 |
| 12/9/2011 | 21 | 7.2 | 7.1 | 6.6 | 5.8 | 6.3 | 6.2 | 7.9 | 7.2 |
| 12/9/2011 | 22 | 7.2 | 7.1 | 6.5 | 5.8 | 6.2 | 6.1 | 7.9 | 7.2 |
| 12/9/2011 | 23 | 7.2 | 7.1 | 6.5 | 5.7 | 6.2 | 6.0 | 7.9 | 7.2 |
| 12/9/2011 | 24 | 7.3 | 7.1 | 6.5 | 5.6 | 6.1 | 5.9 | 7.9 | 7.3 |
| 12/10/2011 | 1 | 7.3 | 7.1 | 6.4 | 5.6 | 6.0 | 5.8 | 7.9 | 7.3 |
| 12/10/2011 | 2 | 7.2 | 7.1 | 6.4 | 5.5 | 6.0 | 5.8 | 7.9 | 7.3 |
| 12/10/2011 | 3 | 7.2 | 7.1 | 6.4 | 5.5 | 6.0 | 5.8 | 7.9 | 7.2 |
| 12/10/2011 | 4 | 7.2 | 7.1 | 6.5 | 5.5 | 5.9 | 5.8 | 7.9 | 7.2 |
| 12/10/2011 | 5 | 7.2 | 7.0 | 6.5 | 5.4 | 5.9 | 5.7 | 7.9 | 7.1 |
| 12/10/2011 | 6 | 7.1 | 7.0 | 6.5 | 5.4 | 5.9 | 5.7 | 7.9 | 7.1 |
| 12/10/2011 | 7 | 7.1 | 7.0 | 6.4 | 5.4 | 5.9 | 5.7 | 7.9 | 7.1 |
| 12/10/2011 | 8 | 7.1 | 7.0 | 6.4 | 5.4 | 5.9 | 5.7 | 7.8 | 7.1 |
| 12/10/2011 | 9 | 7.1 | 7.0 | 6.4 | 5.5 | 5.9 | 5.7 | 7.9 | 7.1 |
| 12/10/2011 | 10 | 7.1 | 6.9 | 6.4 | 5.4 | 5.9 | 5.7 | 8.0 | 7.1 |
| 12/10/2011 | 11 | 7.1 | 6.9 | 6.4 | 5.4 | 5.9 | 5.7 | 8.1 | 7.1 |
| 12/10/2011 | 12 | 7.1 | 7.0 | 6.5 | 5.5 | 5.9 | 5.7 | 8.2 | 7.1 |
| 12/10/2011 | 13 | 7.0 | 7.0 | 6.6 | 5.5 | 5.9 | 5.8 | 8.3 | 7.2 |
| 12/10/2011 | 14 | 7.0 | 7.0 | 6.7 | 5.6 | 6.0 | 5.8 | 8.4 | 7.2 |
| 12/10/2011 | 15 | 7.0 | 6.9 | 6.8 | 5.6 | 6.1 | 5.9 | 8.3 | 7.3 |
| 12/10/2011 | 16 | 7.0 | 6.9 | 6.7 | 5.7 | 6.2 | 6.0 | 8.2 | 7.3 |
| 12/10/2011 | 17 | 6.9 | 6.8 | 6.6 | 5.7 | 6.2 | 6.0 | 7.8 | 7.2 |
| 12/10/2011 | 18 | 6.9 | 6.8 | 6.5 | 5.7 | 6.3 | 6.1 | 7.5 | 6.9 |
| 12/10/2011 | 19 | 6.9 | 6.7 | 6.4 | 5.8 | 6.3 | 6.1 | 7.5 | 6.9 |
| 12/10/2011 | 20 | 6.9 | 6.8 | 6.4 | 5.7 | 6.2 | 6.0 | 7.5 | 6.9 |
| 12/10/2011 | 21 | 6.9 | 6.8 | 6.4 | 5.6 | 6.1 | 5.9 | 7.5 | 6.9 |
| 12/10/2011 | 22 | 7.0 | 6.8 | 6.4 | 5.6 | 6.0 | 5.9 | 7.5 | 7.0 |
| 12/10/2011 | 23 | 7.0 | 6.8 | 6.4 | 5.6 | 6.0 | 5.8 | 7.5 | 7.0 |
| 12/10/2011 | 24 | 7.0 | 6.9 | 6.3 | 5.6 | 5.9 | 5.8 | 7.5 | 6.9 |
| 12/11/2011 | 1 | 7.0 | 6.8 | 6.3 | 5.5 | 5.9 | 5.7 | 7.5 | 6.9 |
| 12/11/2011 | 2 | 7.0 | 6.8 | 6.3 | 5.5 | 5.9 | 5.7 | 7.5 | 6.9 |
| 12/11/2011 | 3 | 7.0 | 6.9 | 6.3 | 5.4 | 5.9 | 5.7 | 7.6 | 6.9 |
| 12/11/2011 | 4 | 7.0 | 6.9 | 6.3 | 5.5 | 5.9 | 5.7 | 7.6 | 6.9 |
| 12/11/2011 | 5 | 7.0 | 6.8 | 6.4 | 5.4 | 5.9 | 5.7 | 7.6 | 6.9 |
| 12/11/2011 | 6 | 6.9 | 6.8 | 6.4 | 5.5 | 5.9 | 5.7 | 7.6 | 6.9 |
| 12/11/2011 | 7 | 6.9 | 6.8 | 6.4 | 5.5 | 5.9 | 5.7 | 7.6 | 6.8 |
| 12/11/2011 | 8 | 6.9 | 6.8 | 6.4 | 5.4 | 5.9 | 5.7 | 7.7 | 6.8 |
| 12/11/2011 | 9 | 6.9 | 6.8 | 6.4 | 5.5 | 5.9 | 5.7 | 7.7 | 6.8 |
| 12/11/2011 | 10 | 6.9 | 6.7 | 6.4 | 5.5 | 5.9 | 5.7 | 7.7 | 6.7 |
| 12/11/2011 | 11 | 6.8 | 6.7 | 6.4 | 5.5 | 5.9 | 5.7 | 7.8 | 6.8 |
| 12/11/2011 | 12 | 6.8 | 6.7 | 6.4 | 5.5 | 5.9 | 5.8 | 7.9 | 6.9 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/11/2011 | 13 | 6.8 | 6.7 | 6.5 | 5.6 | 6.0 | 5.9 | 7.9 | 7.2 |
| 12/11/2011 | 14 | 6.8 | 6.7 | 6.6 | 5.7 | 6.0 | 5.9 | 8.0 | 7.2 |
| 12/11/2011 | 15 | 6.8 | 6.7 | 6.7 | 5.8 | 6.1 | 5.9 | 8.0 | 7.1 |
| 12/11/2011 | 16 | 6.7 | 6.7 | 6.7 | 5.8 | 6.2 | 5.9 | 8.1 | 7.0 |
| 12/11/2011 | 17 | 6.7 | 6.7 | 6.6 | 5.9 | 6.2 | 6.0 | 7.5 | 7.2 |
| 12/11/2011 | 18 | 6.7 | 6.6 | 6.5 | 5.8 | 6.3 | 6.1 | 7.3 | 6.7 |
| 12/11/2011 | 19 | 6.7 | 6.6 | 6.5 | 5.8 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/11/2011 | 20 | 6.7 | 6.6 | 6.4 | 5.8 | 6.2 | 6.1 | 7.2 | 6.7 |
| 12/11/2011 | 21 | 6.7 | 6.6 | 6.4 | 5.8 | 6.2 | 6.0 | 7.2 | 6.7 |
| 12/11/2011 | 22 | 6.7 | 6.6 | 6.4 | 5.7 | 6.1 | 5.9 | 7.2 | 6.7 |
| 12/11/2011 | 23 | 6.7 | 6.6 | 6.3 | 5.7 | 6.1 | 5.9 | 7.2 | 6.7 |
| 12/11/2011 | 24 | 6.7 | 6.6 | 6.2 | 5.6 | 6.0 | 5.8 | 7.2 | 6.6 |
| 12/12/2011 | 1 | 6.7 | 6.6 | 6.2 | 5.5 | 5.9 | 5.8 | 7.2 | 6.6 |
| 12/12/2011 | 2 | 6.7 | 6.5 | 6.1 | 5.4 | 5.8 | 5.6 | 7.2 | 6.6 |
| 12/12/2011 | 3 | 6.7 | 6.5 | 6.1 | 5.4 | 5.8 | 5.6 | 7.2 | 6.6 |
| 12/12/2011 | 4 | 6.6 | 6.5 | 6.0 | 5.3 | 5.7 | 5.5 | 7.2 | 6.6 |
| 12/12/2011 | 5 | 6.6 | 6.5 | 6.1 | 5.3 | 5.6 | 5.4 | 7.3 | 6.6 |
| 12/12/2011 | 6 | 6.6 | 6.4 | 6.0 | 5.2 | 5.6 | 5.4 | 7.3 | 6.5 |
| 12/12/2011 | 7 | 6.6 | 6.4 | 5.9 | 5.1 | 5.5 | 5.4 | 7.3 | 6.5 |
| 12/12/2011 | 8 | 6.6 | 6.4 | 5.9 | 5.1 | 5.5 | 5.3 | 7.3 | 6.5 |
| 12/12/2011 | 9 | 6.6 | 6.4 | 5.8 | 5.0 | 5.4 | 5.3 | 7.3 | 6.5 |
| 12/12/2011 | 10 | 6.5 | 6.4 | 5.8 | 4.9 | 5.4 | 5.2 | 7.5 | 6.5 |
| 12/12/2011 | 11 | 6.5 | 6.4 | 5.9 | 5.4 | 5.4 | 5.3 | 7.6 | 6.5 |
| 12/12/2011 | 12 | 6.5 | 6.4 | 6.1 | 5.7 | 5.4 | 5.3 | 7.8 | 6.5 |
| 12/12/2011 | 13 | 6.5 | 6.4 | 6.4 | 5.4 | 5.4 | 5.4 | 7.9 | 6.6 |
| 12/12/2011 | 14 | 6.5 | 6.4 | 6.6 | 5.1 | 5.4 | 5.4 | 7.8 | 6.6 |
| 12/12/2011 | 15 | 6.5 | 6.4 | 6.6 | 5.2 | 5.6 | 5.4 | 7.7 | 6.7 |
| 12/12/2011 | 16 | 6.5 | 6.4 | 6.4 | 5.3 | 5.9 | 5.6 | 7.6 | 6.8 |
| 12/12/2011 | 17 | 6.4 | 6.3 | 6.3 | 5.5 | 6.1 | 5.7 | 7.3 | 6.8 |
| 12/12/2011 | 18 | 6.4 | 6.2 | 6.0 | 5.6 | 6.0 | 5.8 | 7.0 | 6.4 |
| 12/12/2011 | 19 | 6.4 | 6.2 | 5.8 | 5.4 | 5.9 | 5.7 | 6.9 | 6.3 |
| 12/12/2011 | 20 | 6.4 | 6.2 | 5.6 | 5.2 | 5.7 | 5.5 | 6.9 | 6.4 |
| 12/12/2011 | 21 | 6.4 | 6.2 | 5.5 | 4.9 | 5.4 | 5.3 | 6.9 | 6.4 |
| 12/12/2011 | 22 | 6.4 | 6.2 | 5.4 | 4.8 | 5.3 | 5.1 | 6.8 | 6.3 |
| 12/12/2011 | 23 | 6.4 | 6.2 | 5.4 | 4.6 | 5.1 | 4.9 | 6.8 | 6.3 |
| 12/12/2011 | 24 | 6.3 | 6.1 | 5.3 | 4.5 | 5.0 | 4.8 | 6.8 | 6.2 |
| 12/13/2011 | 1 | 6.3 | 6.1 | 5.3 | 4.4 | 4.9 | 4.7 | 6.7 | 6.2 |
| 12/13/2011 | 2 | 6.2 | 6.0 | 5.3 | 4.3 | 4.8 | 4.6 | 6.7 | 6.1 |
| 12/13/2011 | 3 | 6.1 | 6.0 | 5.3 | 4.2 | 4.7 | 4.5 | 6.7 | 6.0 |
| 12/13/2011 | 4 | 6.1 | 5.9 | 5.3 | 4.2 | 4.7 | 4.5 | 6.7 | 5.9 |
| 12/13/2011 | 5 | 6.1 | 5.8 | 5.4 | 4.2 | 4.7 | 4.5 | 6.7 | 6.0 |
| 12/13/2011 | 6 | 6.1 | 5.9 | 5.3 | 4.1 | 4.7 | 4.5 | 6.7 | 6.0 |
| 12/13/2011 | 7 | 6.1 | 5.9 | 5.3 | 4.2 | 4.7 | 4.5 | 6.7 | 6.0 |
| 12/13/2011 | 8 | 6.1 | 5.9 | 5.3 | 4.2 | 4.7 | 4.5 | 6.7 | 6.0 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/13/2011 | 9 | 6.1 | 5.9 | 5.3 | 4.2 | 4.8 | 4.6 | 6.7 | 6.0 |
| 12/13/2011 | 10 | 6.1 | 5.9 | 5.3 | 4.3 | 4.8 | 4.6 | 6.7 | 6.0 |
| 12/13/2011 | 11 | 6.1 | 6.0 | 5.4 | 4.3 | 4.8 | 4.6 | 6.7 | 6.1 |
| 12/13/2011 | 12 | 6.1 | 6.1 | 5.6 | 4.4 | 4.8 | 4.7 | 6.7 | 6.1 |
| 12/13/2011 | 13 | 6.1 | 6.1 | 5.9 | 4.6 | 4.9 | 4.8 | 6.8 | 6.1 |
| 12/13/2011 | 14 | 6.2 | 6.1 | 6.0 | 4.7 | 5.1 | 4.9 | 6.8 | 6.1 |
| 12/13/2011 | 15 | 6.2 | 6.1 | 6.1 | 4.8 | 5.2 | 5.0 | 6.8 | 6.2 |
| 12/13/2011 | 16 | 6.2 | 6.1 | 6.0 | 4.9 | 5.4 | 5.2 | 6.8 | 6.2 |
| 12/13/2011 | 17 | 6.3 | 6.1 | 5.9 | 5.0 | 5.5 | 5.3 | 6.8 | 6.2 |
| 12/13/2011 | 18 | 6.3 | 6.1 | 5.8 | 5.0 | 5.6 | 5.4 | 6.9 | 6.2 |
| 12/13/2011 | 19 | 6.3 | 6.2 | 5.8 | 5.1 | 5.5 | 5.4 | 6.9 | 6.3 |
| 12/13/2011 | 20 | 6.4 | 6.2 | 5.8 | 5.1 | 5.5 | 5.4 | 6.9 | 6.3 |
| 12/13/2011 | 21 | 6.4 | 6.2 | 5.8 | 5.1 | 5.4 | 5.3 | 7.0 | 6.3 |
| 12/13/2011 | 22 | 6.4 | 6.2 | 5.8 | 5.0 | 5.4 | 5.2 | 7.0 | 6.4 |
| 12/13/2011 | 23 | 6.5 | 6.3 | 5.7 | 4.9 | 5.3 | 5.1 | 7.0 | 6.4 |
| 12/13/2011 | 24 | 6.5 | 6.3 | 5.7 | 4.8 | 5.3 | 5.1 | 7.1 | 6.4 |
| 12/14/2011 | 1 | 6.5 | 6.3 | 5.7 | 4.8 | 5.2 | 5.1 | 7.1 | 6.5 |
| 12/14/2011 | 2 | 6.5 | 6.4 | 5.7 | 4.8 | 5.2 | 5.1 | 7.1 | 6.5 |
| 12/14/2011 | 3 | 6.6 | 6.4 | 5.7 | 4.8 | 5.2 | 5.0 | 7.1 | 6.5 |
| 12/14/2011 | 4 | 6.6 | 6.4 | 5.8 | 4.8 | 5.2 | 5.0 | 7.2 | 6.5 |
| 12/14/2011 | 5 | 6.6 | 6.5 | 5.8 | 4.8 | 5.2 | 5.1 | 7.2 | 6.6 |
| 12/14/2011 | 6 | 6.6 | 6.5 | 5.8 | 4.8 | 5.3 | 5.1 | 7.2 | 6.6 |
| 12/14/2011 | 7 | 6.7 | 6.5 | 5.9 | 4.9 | 5.3 | 5.1 | 7.3 | 6.7 |
| 12/14/2011 | 8 | 6.7 | 6.6 | 5.9 | 4.9 | 5.4 | 5.2 | 7.3 | 6.7 |
| 12/14/2011 | 9 | 6.7 | 6.6 | 6.0 | 4.9 | 5.4 | 5.2 | 7.3 | 6.7 |
| 12/14/2011 | 10 | 6.7 | 6.6 | 6.0 | 5.1 | 5.5 | 5.3 | 7.3 | 6.7 |
| 12/14/2011 | 11 | 6.7 | 6.6 | 6.1 | 5.1 | 5.5 | 5.3 | 7.3 | 6.7 |
| 12/14/2011 | 12 | 6.7 | 6.7 | 6.2 | 5.1 | 5.6 | 5.4 | 7.4 | 6.7 |
| 12/14/2011 | 13 | N/A | 6.7 | 6.3 | 5.3 | 5.6 | 5.5 | 7.4 | 6.7 |
| 12/14/2011 | 14 | 6.7 | 6.7 | 6.3 | 5.3 | 5.7 | 5.5 | 7.4 | 6.7 |
| 12/14/2011 | 15 | 6.7 | 6.7 | 6.3 | 5.4 | 5.8 | 5.6 | 7.4 | 6.7 |
| 12/14/2011 | 16 | 6.7 | 6.6 | 6.3 | 5.5 | 5.8 | 5.6 | 7.4 | 6.7 |
| 12/14/2011 | 17 | 6.7 | 6.6 | 6.3 | 5.5 | 5.9 | 5.7 | 7.4 | 6.7 |
| 12/14/2011 | 18 | 6.7 | 6.7 | 6.3 | 5.6 | 5.9 | 5.7 | 7.4 | 6.7 |
| 12/14/2011 | 19 | 6.7 | 6.7 | 6.2 | 5.6 | 5.9 | 5.7 | 7.4 | 6.7 |
| 12/14/2011 | 20 | 6.7 | 6.6 | 6.2 | 5.6 | 5.9 | 5.7 | 7.4 | 6.7 |
| 12/14/2011 | 21 | 6.7 | 6.6 | 6.2 | 5.5 | 5.8 | 5.7 | 7.4 | 6.7 |
| 12/14/2011 | 22 | 6.7 | 6.6 | 6.2 | 5.4 | 5.8 | 5.7 | 7.3 | 6.7 |
| 12/14/2011 | 23 | 6.7 | 6.6 | 6.2 | 5.5 | 5.8 | 5.6 | 7.3 | 6.7 |
| 12/14/2011 | 24 | 6.7 | 6.6 | 6.2 | 5.4 | 5.8 | 5.6 | 7.3 | 6.7 |
| 12/15/2011 | 1 | 6.7 | 6.6 | 6.2 | 5.5 | 5.8 | 5.6 | 7.3 | 6.7 |
| 12/15/2011 | 2 | 6.7 | 6.6 | 6.2 | 5.4 | 5.8 | 5.6 | 7.3 | 6.7 |
| 12/15/2011 | 3 | 6.7 | 6.6 | 6.2 | 5.5 | 5.8 | 5.6 | 7.3 | 6.6 |
| 12/15/2011 | 4 | 6.7 | 6.6 | 6.1 | 5.4 | 5.8 | 5.6 | 7.3 | 6.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/15/2011 | 5 | 6.6 | 6.5 | 6.1 | 5.4 | 5.7 | 5.6 | 7.2 | 6.6 |
| 12/15/2011 | 6 | 6.6 | 6.5 | 6.1 | 5.4 | 5.7 | 5.6 | 7.2 | 6.6 |
| 12/15/2011 | 7 | 6.6 | 6.5 | 6.1 | 5.3 | 5.7 | 5.5 | 7.2 | 6.6 |
| 12/15/2011 | 8 | 6.6 | 6.5 | 6.1 | 5.3 | 5.7 | 5.5 | 7.2 | 6.5 |
| 12/15/2011 | 9 | 6.6 | 6.5 | 6.0 | 5.2 | 5.6 | 5.5 | 7.1 | 6.5 |
| 12/15/2011 | 10 | 6.6 | 6.5 | 6.1 | 5.3 | 5.7 | 5.5 | 7.1 | 6.5 |
| 12/15/2011 | 11 | 6.5 | 6.5 | 6.2 | 5.3 | 5.7 | 5.6 | 7.2 | 6.4 |
| 12/15/2011 | 12 | 6.5 | 6.5 | 6.3 | 5.4 | 5.7 | 5.6 | 7.2 | 6.4 |
| 12/15/2011 | 13 | 6.5 | 6.5 | 6.4 | 5.5 | 5.8 | 5.7 | 7.2 | 6.4 |
| 12/15/2011 | 14 | 6.5 | 6.4 | 6.5 | 5.6 | 5.9 | 5.8 | 7.2 | 6.4 |
| 12/15/2011 | 15 | 6.5 | 6.4 | 6.5 | 5.7 | 6.0 | 5.9 | 7.3 | 6.5 |
| 12/15/2011 | 16 | 6.6 | 6.5 | 6.5 | 5.8 | 6.1 | 6.0 | 7.3 | 6.6 |
| 12/15/2011 | 17 | 6.7 | 6.5 | 6.5 | 5.9 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/15/2011 | 18 | 6.7 | 6.6 | 6.4 | 5.9 | 6.3 | 6.1 | 7.3 | 6.7 |
| 12/15/2011 | 19 | 6.7 | 6.6 | 6.3 | 5.9 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/15/2011 | 20 | 6.7 | 6.7 | 6.3 | 5.9 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/15/2011 | 21 | 6.8 | 6.7 | 6.4 | 5.8 | 6.1 | 6.0 | 7.4 | 6.8 |
| 12/15/2011 | 22 | 6.8 | 6.7 | 6.4 | 5.8 | 6.1 | 5.9 | 7.4 | 6.8 |
| 12/15/2011 | 23 | 6.8 | 6.7 | 6.4 | 5.7 | 6.1 | 5.9 | 7.4 | 6.8 |
| 12/15/2011 | 24 | 6.8 | 6.7 | 6.4 | 5.7 | 6.1 | 5.9 | 7.4 | 6.8 |
| 12/16/2011 | 1 | 6.8 | 6.7 | 6.3 | 5.7 | 6.1 | 5.9 | 7.4 | 6.8 |
| 12/16/2011 | 2 | 6.8 | 6.7 | 6.3 | 5.8 | 6.1 | 5.9 | 7.4 | 6.8 |
| 12/16/2011 | 3 | 6.8 | 6.7 | 6.3 | 5.7 | 6.1 | 5.9 | 7.4 | 6.8 |
| 12/16/2011 | 4 | 6.8 | 6.7 | 6.3 | 5.7 | 6.0 | 5.9 | 7.4 | 6.8 |
| 12/16/2011 | 5 | 6.7 | 6.7 | 6.3 | 5.7 | 6.0 | 5.8 | 7.4 | 6.8 |
| 12/16/2011 | 6 | 6.8 | 6.7 | 6.3 | 5.7 | 6.0 | 5.8 | 7.4 | 6.7 |
| 12/16/2011 | 7 | 6.8 | 6.7 | 6.4 | 5.7 | 6.0 | 5.9 | 7.4 | 6.7 |
| 12/16/2011 | 8 | 6.8 | 6.7 | 6.4 | 5.7 | 6.0 | 5.9 | 7.3 | 6.7 |
| 12/16/2011 | 9 | 6.7 | 6.7 | 6.4 | 5.7 | 6.0 | 5.9 | 7.3 | 6.7 |
| 12/16/2011 | 10 | 6.7 | 6.7 | 6.4 | 5.7 | 6.1 | 5.9 | 7.3 | 6.7 |
| 12/16/2011 | 11 | 6.7 | 6.7 | 6.4 | 5.7 | 6.1 | 5.9 | 7.4 | 6.7 |
| 12/16/2011 | 12 | 6.7 | 6.7 | 6.5 | 5.8 | 6.1 | 6.0 | 7.4 | 6.7 |
| 12/16/2011 | 13 | 6.7 | 6.7 | 6.6 | 5.9 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/16/2011 | 14 | 6.7 | 6.7 | 6.7 | 6.0 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/16/2011 | 15 | 6.8 | 6.7 | 6.8 | 6.1 | 6.3 | 6.2 | 7.4 | 6.7 |
| 12/16/2011 | 16 | 6.8 | 6.7 | 6.8 | 6.1 | 6.4 | 6.3 | 7.4 | 6.8 |
| 12/16/2011 | 17 | 6.8 | 6.7 | 6.7 | 6.2 | 6.5 | 6.3 | 7.4 | 6.8 |
| 12/16/2011 | 18 | 6.8 | 6.7 | 6.6 | 6.2 | 6.5 | 6.3 | 7.4 | 6.8 |
| 12/16/2011 | 19 | 6.7 | 6.7 | 6.5 | 6.1 | 6.5 | 6.3 | 7.4 | 6.7 |
| 12/16/2011 | 20 | 6.7 | 6.7 | 6.5 | 6.1 | 6.5 | 6.3 | 7.3 | 6.7 |
| 12/16/2011 | 21 | 6.7 | 6.7 | 6.4 | 6.1 | 6.4 | 6.3 | 7.3 | 6.7 |
| 12/16/2011 | 22 | 6.7 | 6.6 | 6.4 | 6.0 | 6.3 | 6.2 | 7.3 | 6.7 |
| 12/16/2011 | 23 | 6.7 | 6.6 | 6.4 | 5.9 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/16/2011 | 24 | 6.7 | 6.6 | 6.4 | 5.8 | 6.2 | 6.1 | 7.3 | 6.7 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/17/2011 | 1 | 6.7 | 6.6 | 6.3 | 5.8 | 6.2 | 6.0 | 7.3 | 6.6 |
| 12/17/2011 | 2 | 6.6 | 6.6 | 6.3 | 5.8 | 6.1 | 6.0 | 7.3 | 6.6 |
| 12/17/2011 | 3 | 6.6 | 6.6 | 6.3 | 5.8 | 6.1 | 6.0 | 7.2 | 6.6 |
| 12/17/2011 | 4 | 6.6 | 6.5 | 6.3 | 5.7 | 6.1 | 5.9 | 7.2 | 6.6 |
| 12/17/2011 | 5 | 6.6 | 6.5 | 6.3 | 5.7 | 6.1 | 5.9 | 7.2 | 6.6 |
| 12/17/2011 | 6 | 6.6 | 6.5 | 6.3 | 5.7 | 6.1 | 5.9 | 7.2 | 6.5 |
| 12/17/2011 | 7 | 6.6 | 6.5 | 6.3 | 5.7 | 6.0 | 5.9 | 7.2 | 6.5 |
| 12/17/2011 | 8 | 6.6 | 6.5 | 6.3 | 5.7 | 6.0 | 5.9 | 7.2 | 6.5 |
| 12/17/2011 | 9 | 6.6 | 6.5 | 6.2 | 5.7 | 6.0 | 5.9 | 7.1 | 6.5 |
| 12/17/2011 | 10 | 6.6 | 6.5 | 6.3 | 5.7 | 6.0 | 5.9 | 7.2 | 6.5 |
| 12/17/2011 | 11 | 6.6 | 6.5 | 6.4 | 5.7 | 6.0 | 5.9 | 7.2 | 6.5 |
| 12/17/2011 | 12 | 6.6 | 6.5 | 6.5 | 5.8 | 6.1 | 6.0 | 7.2 | 6.5 |
| 12/17/2011 | 13 | 6.6 | 6.5 | 6.6 | 5.9 | 6.1 | 6.0 | 7.3 | 6.5 |
| 12/17/2011 | 14 | 6.6 | 6.6 | 6.7 | 6.0 | 6.2 | 6.1 | 7.3 | 6.6 |
| 12/17/2011 | 15 | 6.7 | 6.6 | 6.7 | 6.1 | 6.3 | 6.2 | 7.3 | 6.7 |
| 12/17/2011 | 16 | 6.7 | 6.6 | 6.7 | 6.2 | 6.4 | 6.3 | 7.4 | 6.7 |
| 12/17/2011 | 17 | 6.7 | 6.7 | 6.6 | 6.1 | 6.5 | 6.3 | 7.4 | 6.7 |
| 12/17/2011 | 18 | 6.7 | 6.7 | 6.6 | 6.2 | 6.5 | 6.3 | 7.4 | 6.8 |
| 12/17/2011 | 19 | 6.8 | 6.7 | 6.5 | 6.2 | 6.5 | 6.3 | 7.4 | 6.8 |
| 12/17/2011 | 20 | 6.8 | 6.7 | 6.5 | 6.1 | 6.4 | 6.3 | 7.4 | 6.8 |
| 12/17/2011 | 21 | 6.8 | 6.7 | 6.5 | 6.1 | 6.4 | 6.2 | 7.4 | 6.8 |
| 12/17/2011 | 22 | 6.8 | 6.7 | 6.5 | 6.0 | 6.3 | 6.2 | 7.4 | 6.8 |
| 12/17/2011 | 23 | 6.8 | 6.8 | 6.5 | 6.0 | 6.3 | 6.2 | 7.4 | 6.8 |
| 12/17/2011 | 24 | 6.8 | 6.8 | 6.5 | 6.0 | 6.3 | 6.1 | 7.5 | 6.8 |
| 12/18/2011 | 1 | 6.8 | 6.8 | 6.5 | 5.9 | 6.3 | 6.1 | 7.5 | 6.8 |
| 12/18/2011 | 2 | 6.8 | 6.8 | 6.5 | 5.9 | 6.3 | 6.1 | 7.5 | 6.8 |
| 12/18/2011 | 3 | 6.8 | 6.8 | 6.5 | 5.9 | 6.2 | 6.1 | 7.4 | 6.8 |
| 12/18/2011 | 4 | 6.8 | 6.7 | 6.5 | 5.8 | 6.2 | 6.0 | 7.4 | 6.8 |
| 12/18/2011 | 5 | 6.7 | 6.7 | 6.4 | 5.8 | 6.2 | 6.0 | 7.4 | 6.7 |
| 12/18/2011 | 6 | 6.7 | 6.7 | 6.4 | 5.9 | 6.2 | 6.0 | 7.4 | 6.7 |
| 12/18/2011 | 7 | 6.7 | 6.6 | 6.4 | 5.8 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/18/2011 | 8 | 6.7 | 6.6 | 6.4 | 5.9 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/18/2011 | 9 | 6.7 | 6.7 | 6.4 | 5.9 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/18/2011 | 10 | 6.7 | 6.7 | 6.4 | 5.9 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/18/2011 | 11 | 6.8 | 6.7 | 6.5 | 6.0 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/18/2011 | 12 | 6.8 | 6.8 | 6.8 | 6.2 | 6.3 | 6.2 | 7.4 | 6.8 |
| 12/18/2011 | 13 | 6.8 | 6.8 | 7.1 | 6.4 | 6.4 | 6.3 | 7.4 | 6.8 |
| 12/18/2011 | 14 | 6.9 | 6.9 | 7.2 | 6.4 | 6.5 | 6.4 | 7.4 | 6.8 |
| 12/18/2011 | 15 | 6.9 | 6.9 | 7.3 | 6.5 | 6.7 | 6.5 | 7.5 | 6.9 |
| 12/18/2011 | 16 | 6.9 | 6.9 | 7.2 | 6.5 | 6.8 | 6.7 | 7.5 | 6.9 |
| 12/18/2011 | 17 | 6.9 | 6.8 | 7.0 | 6.7 | 7.0 | 6.8 | 7.5 | 6.9 |
| 12/18/2011 | 18 | 6.9 | 6.8 | 6.8 | 6.5 | 7.0 | 6.8 | 7.5 | 6.9 |
| 12/18/2011 | 19 | 6.9 | 6.8 | 6.6 | 6.5 | 6.9 | 6.7 | 7.5 | 6.9 |
| 12/18/2011 | 20 | 6.9 | 6.8 | 6.4 | 6.4 | 6.7 | 6.6 | 7.5 | 6.8 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/18/2011 | 21 | 6.8 | 6.7 | 6.3 | 6.2 | 6.5 | 6.4 | 7.4 | 6.8 |
| 12/18/2011 | 22 | 6.8 | 6.7 | 6.2 | 6.0 | 6.3 | 6.2 | 7.4 | 6.8 |
| 12/18/2011 | 23 | 6.8 | 6.7 | 6.1 | 5.8 | 6.1 | 6.0 | 7.4 | 6.8 |
| 12/18/2011 | 24 | 6.8 | 6.7 | 6.2 | 5.6 | 6.0 | 5.9 | 7.4 | 6.7 |
| 12/19/2011 | 1 | 6.8 | 6.7 | 6.3 | 5.6 | 5.9 | 5.8 | 7.4 | 6.7 |
| 12/19/2011 | 2 | 6.7 | 6.7 | 6.4 | 5.6 | 5.9 | 5.8 | 7.4 | 6.7 |
| 12/19/2011 | 3 | 6.7 | 6.7 | 6.5 | 5.6 | 6.0 | 5.8 | 7.4 | 6.7 |
| 12/19/2011 | 4 | 6.7 | 6.7 | 6.5 | 5.7 | 6.1 | 5.8 | 7.4 | 6.7 |
| 12/19/2011 | 5 | 6.7 | 6.7 | 6.5 | 5.8 | 6.1 | 5.9 | 7.4 | 6.7 |
| 12/19/2011 | 6 | 6.7 | 6.7 | 6.5 | 5.8 | 6.2 | 6.0 | 7.4 | 6.7 |
| 12/19/2011 | 7 | 6.8 | 6.7 | 6.5 | 5.9 | 6.2 | 6.0 | 7.4 | 6.8 |
| 12/19/2011 | 8 | 6.8 | 6.7 | 6.4 | 5.8 | 6.2 | 6.0 | 7.4 | 6.8 |
| 12/19/2011 | 9 | 6.7 | 6.7 | 6.4 | 5.8 | 6.2 | 6.0 | 7.4 | 6.8 |
| 12/19/2011 | 10 | 6.7 | 6.7 | 6.4 | 5.8 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/19/2011 | 11 | 6.7 | 6.7 | 6.4 | 5.9 | 6.2 | 6.1 | 7.4 | 6.7 |
| 12/19/2011 | 12 | 6.7 | 6.7 | 6.4 | 5.9 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/19/2011 | 13 | 6.7 | 6.7 | 6.4 | 5.9 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/19/2011 | 14 | 6.7 | 6.7 | 6.5 | 5.8 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/19/2011 | 15 | 6.7 | 6.7 | 6.5 | 5.8 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/19/2011 | 16 | 6.7 | 6.6 | 6.5 | 5.8 | 6.2 | 6.1 | 7.3 | 6.7 |
| 12/19/2011 | 17 | 6.6 | 6.6 | 6.4 | 5.8 | 6.2 | 6.0 | 7.3 | 6.6 |
| 12/19/2011 | 18 | 6.6 | 6.6 | 6.4 | 5.8 | 6.2 | 6.0 | 7.3 | 6.6 |
| 12/19/2011 | 19 | 6.6 | 6.5 | 6.3 | 5.8 | 6.2 | 6.0 | 7.2 | 6.6 |
| 12/19/2011 | 20 | 6.6 | 6.5 | 6.3 | 5.7 | 6.2 | 6.0 | 7.2 | 6.6 |
| 12/19/2011 | 21 | 6.6 | 6.5 | 6.2 | 5.7 | 6.1 | 5.9 | 7.2 | 6.5 |
| 12/19/2011 | 22 | 6.5 | 6.5 | 6.2 | 5.6 | 6.0 | 5.9 | 7.2 | 6.5 |
| 12/19/2011 | 23 | 6.6 | 6.5 | 6.2 | 5.6 | 6.0 | 5.8 | 7.2 | 6.5 |
| 12/19/2011 | 24 | 6.6 | 6.5 | 6.2 | 5.6 | 5.9 | 5.8 | 7.2 | 6.5 |
| 12/20/2011 | 1 | 6.5 | 6.5 | 6.2 | 5.5 | 5.9 | 5.8 | 7.2 | 6.5 |
| 12/20/2011 | 2 | 6.5 | 6.5 | 6.1 | 5.5 | 5.9 | 5.7 | 7.2 | 6.5 |
| 12/20/2011 | 3 | 6.5 | 6.4 | 6.1 | 5.5 | 5.9 | 5.7 | 7.2 | 6.5 |
| 12/20/2011 | 4 | 6.5 | 6.4 | 6.1 | 5.5 | 5.9 | 5.7 | 7.2 | 6.5 |
| 12/20/2011 | 5 | 6.5 | 6.4 | 6.1 | 5.5 | 5.8 | 5.7 | 7.2 | 6.5 |
| 12/20/2011 | 6 | 6.5 | 6.4 | 6.1 | 5.5 | 5.8 | 5.7 | 7.2 | 6.5 |
| 12/20/2011 | 7 | 6.6 | 6.5 | 6.1 | 5.5 | 5.8 | 5.7 | 7.2 | 6.6 |
| 12/20/2011 | 8 | 6.6 | 6.5 | 6.1 | 5.5 | 5.8 | 5.6 | 7.2 | 6.6 |
| 12/20/2011 | 9 | 6.6 | 6.5 | 6.1 | 5.4 | 5.8 | 5.6 | 7.2 | 6.6 |
| 12/20/2011 | 10 | 6.6 | 6.5 | 6.1 | 5.4 | 5.8 | 5.6 | 7.2 | 6.6 |
| 12/20/2011 | 11 | 6.6 | 6.5 | 6.2 | 5.4 | 5.8 | 5.6 | 7.2 | 6.6 |
| 12/20/2011 | 12 | 6.6 | 6.6 | 6.3 | 5.5 | 5.8 | 5.7 | 7.2 | 6.6 |
| 12/20/2011 | 13 | 6.6 | 6.6 | 6.4 | 5.6 | 5.9 | 5.8 | 7.2 | 6.6 |
| 12/20/2011 | 14 | 6.6 | 6.6 | 6.5 | 5.8 | 6.0 | 5.9 | 7.2 | 6.6 |
| 12/20/2011 | 15 | 6.6 | 6.6 | 6.6 | 5.9 | 6.1 | 6.0 | 7.2 | 6.6 |
| 12/20/2011 | 16 | 6.6 | 6.6 | 6.6 | 5.9 | 6.2 | 6.0 | 7.2 | 6.6 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/20/2011 | 17 | 6.6 | 6.6 | 6.5 | 5.9 | 6.3 | 6.1 | 7.2 | 6.6 |
| 12/20/2011 | 18 | 6.6 | 6.5 | 6.4 | 5.9 | 6.3 | 6.1 | 7.2 | 6.6 |
| 12/20/2011 | 19 | 6.6 | 6.5 | 6.4 | 5.9 | 6.3 | 6.1 | 7.2 | 6.6 |
| 12/20/2011 | 20 | 6.6 | 6.5 | 6.2 | 5.8 | 6.2 | 6.0 | 7.3 | 6.6 |
| 12/20/2011 | 21 | 6.5 | 6.4 | 6.0 | 5.7 | 6.1 | 5.9 | 7.3 | 6.5 |
| 12/20/2011 | 22 | 6.5 | 6.4 | 5.9 | 5.6 | 6.0 | 5.8 | 7.3 | 6.5 |
| 12/20/2011 | 23 | 6.4 | 6.4 | 5.8 | 5.5 | 5.8 | 5.7 | 7.3 | 6.4 |
| 12/20/2011 | 24 | 6.4 | 6.3 | 5.7 | 5.3 | 5.7 | 5.6 | 7.4 | 6.3 |
| 12/21/2011 | 1 | 6.4 | 6.3 | 5.7 | 5.3 | 5.6 | 5.4 | 7.4 | 6.4 |
| 12/21/2011 | 2 | 6.4 | 6.3 | 5.6 | 5.1 | 5.5 | 5.4 | 7.4 | N/A |
| 12/21/2011 | 3 | 6.4 | 6.2 | 5.6 | 5.0 | 5.4 | 5.2 | 7.5 | 6.3 |
| 12/21/2011 | 4 | 6.3 | 6.2 | 5.6 | 4.9 | 5.3 | 5.1 | 7.5 | 6.4 |
| 12/21/2011 | 5 | 6.3 | 6.2 | 5.5 | 4.8 | 5.3 | 5.1 | 7.5 | 6.4 |
| 12/21/2011 | 6 | 6.3 | 6.1 | 5.5 | 4.9 | 5.3 | 5.0 | 7.6 | 6.3 |
| 12/21/2011 | 7 | 6.2 | 6.1 | 5.5 | 4.8 | 5.2 | 5.0 | 7.3 | 6.5 |
| 12/21/2011 | 8 | 6.2 | 6.1 | 5.4 | 4.7 | 5.2 | 4.9 | 6.8 | 6.2 |
| 12/21/2011 | 9 | 6.1 | 6.0 | 5.4 | 4.6 | 5.1 | 4.9 | 6.9 | 6.2 |
| 12/21/2011 | 10 | 6.1 | 6.0 | 5.4 | 4.7 | 5.1 | 4.9 | 6.9 | 6.1 |
| 12/21/2011 | 11 | 6.1 | 6.0 | 5.5 | 5.1 | 5.1 | 4.9 | 6.9 | 6.1 |
| 12/21/2011 | 12 | 6.0 | 5.9 | 5.8 | 5.5 | 5.1 | 5.1 | 7.0 | 6.0 |
| 12/21/2011 | 13 | 6.0 | 5.9 | 6.2 | 5.3 | 5.1 | 5.2 | 7.1 | 6.1 |
| 12/21/2011 | 14 | 6.0 | 5.9 | 6.4 | 5.1 | 5.3 | 5.2 | 7.2 | 6.2 |
| 12/21/2011 | 15 | 6.0 | 5.9 | 6.4 | 5.2 | 5.5 | 5.4 | 7.3 | 6.2 |
| 12/21/2011 | 16 | 6.0 | 5.9 | 6.3 | 5.3 | 5.8 | 5.5 | 7.3 | 6.3 |
| 12/21/2011 | 17 | 6.0 | 5.9 | 6.1 | 5.5 | 6.0 | 5.7 | 7.2 | 6.4 |
| 12/21/2011 | 18 | 6.0 | 5.9 | 5.8 | 5.7 | 6.1 | 5.8 | 7.0 | 6.3 |
| 12/21/2011 | 19 | 6.0 | 5.8 | 5.6 | 5.6 | 5.9 | 5.8 | 6.7 | 5.9 |
| 12/21/2011 | 20 | 6.0 | 5.8 | 5.5 | 5.4 | 5.7 | 5.6 | 6.7 | 6.0 |
| 12/21/2011 | 21 | 6.0 | 5.8 | 5.4 | 5.2 | 5.5 | 5.4 | 6.8 | 6.0 |
| 12/21/2011 | 22 | 6.0 | 5.8 | 5.2 | 4.9 | 5.3 | 5.2 | 6.8 | 6.0 |
| 12/21/2011 | 23 | 6.0 | 5.8 | 5.1 | 4.8 | 5.1 | 5.0 | 6.9 | 6.0 |
| 12/21/2011 | 24 | 6.0 | 5.8 | 5.1 | 4.5 | 4.9 | 4.8 | 6.9 | 6.1 |
| 12/22/2011 | 1 | 6.0 | 5.8 | 5.0 | 4.5 | 4.8 | 4.7 | 7.0 | 6.1 |
| 12/22/2011 | 2 | 6.0 | 5.8 | 4.9 | 4.3 | 4.7 | 4.5 | 7.0 | N/A |
| 12/22/2011 | 3 | 5.9 | 5.7 | 4.9 | 4.2 | 4.6 | 4.4 | 7.0 | N/A |
| 12/22/2011 | 4 | 5.9 | 5.7 | 4.9 | 4.1 | 4.6 | 4.4 | 7.1 | 5.9 |
| 12/22/2011 | 5 | 5.9 | 5.7 | 4.9 | 4.1 | 4.5 | 4.2 | 7.1 | 6.0 |
| 12/22/2011 | 6 | 5.8 | 5.6 | 4.8 | 4.1 | 4.4 | 4.2 | 7.1 | 6.0 |
| 12/22/2011 | 7 | 5.8 | 5.6 | 4.8 | 4.0 | 4.4 | 4.2 | 6.9 | 6.1 |
| 12/22/2011 | 8 | 5.7 | 5.6 | 4.7 | 3.9 | 4.3 | 4.1 | 6.4 | 5.8 |
| 12/22/2011 | 9 | 5.6 | 5.5 | 4.7 | 3.9 | 4.3 | 4.0 | 6.4 | 5.7 |
| 12/22/2011 | 10 | 5.5 | 5.4 | 4.6 | 3.9 | 4.2 | 4.0 | 6.4 | 5.6 |
| 12/22/2011 | 11 | 5.5 | 5.4 | 4.7 | 4.2 | 4.2 | 4.0 | 6.4 | 5.5 |
| 12/22/2011 | 12 | 5.5 | 5.3 | 5.0 | 4.5 | 4.2 | 4.2 | 6.4 | 5.5 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/22/2011 | 13 | 5.4 | 5.3 | 5.3 | 4.2 | 4.2 | 4.2 | 6.5 | 5.4 |
| 12/22/2011 | 14 | 5.4 | 5.3 | 5.4 | 4.0 | 4.3 | 4.3 | 6.5 | 5.5 |
| 12/22/2011 | 15 | 5.4 | 5.3 | 5.4 | 4.0 | 4.5 | 4.3 | 6.6 | 5.6 |
| 12/22/2011 | 16 | 5.4 | 5.3 | 5.3 | 4.1 | 4.8 | 4.5 | 6.7 | 5.7 |
| 12/22/2011 | 17 | 5.4 | 5.2 | 5.1 | 4.5 | 5.0 | 4.7 | 6.8 | 5.7 |
| 12/22/2011 | 18 | 5.3 | 5.2 | 5.0 | 4.6 | 5.0 | 4.8 | 6.3 | 5.7 |
| 12/22/2011 | 19 | 5.3 | 5.2 | 4.9 | 4.6 | 4.9 | 4.8 | 6.0 | 5.3 |
| 12/22/2011 | 20 | 5.2 | 5.1 | 5.0 | 4.5 | 4.8 | 4.7 | 6.0 | 5.3 |
| 12/22/2011 | 21 | 5.2 | 5.1 | 5.1 | 4.4 | 4.7 | 4.6 | 6.0 | 5.2 |
| 12/22/2011 | 22 | 5.2 | 5.1 | 5.1 | 4.3 | 4.7 | 4.6 | 6.0 | 5.2 |
| 12/22/2011 | 23 | 5.2 | 5.1 | 5.1 | 4.3 | 4.7 | 4.6 | 6.0 | 5.1 |
| 12/22/2011 | 24 | 5.2 | 5.1 | 5.1 | 4.3 | 4.7 | 4.6 | 6.1 | 5.2 |
| 12/23/2011 | 1 | 5.2 | 5.1 | 5.1 | 4.3 | 4.8 | 4.6 | 6.1 | 5.2 |
| 12/23/2011 | 2 | 5.2 | 5.1 | 5.0 | 4.4 | 4.8 | 4.6 | 6.2 | 5.3 |
| 12/23/2011 | 3 | 5.2 | 5.1 | 5.0 | 4.4 | 4.7 | 4.6 | 6.2 | 5.3 |
| 12/23/2011 | 4 | 5.2 | 5.0 | 5.0 | 4.3 | 4.7 | 4.5 | 6.3 | 5.3 |
| 12/23/2011 | 5 | 5.1 | 5.0 | 4.9 | 4.3 | 4.7 | 4.5 | 6.3 | 5.4 |
| 12/23/2011 | 6 | 5.1 | 5.0 | 4.9 | 4.2 | 4.6 | 4.5 | 6.4 | 5.4 |
| 12/23/2011 | 7 | 5.1 | 5.0 | 4.8 | 4.2 | 4.6 | 4.4 | 6.3 | 5.3 |
| 12/23/2011 | 8 | 5.1 | 4.9 | 4.8 | 4.2 | 4.6 | 4.4 | 5.9 | 5.1 |
| 12/23/2011 | 9 | 5.0 | 4.9 | 4.8 | 4.2 | 4.5 | 4.4 | 5.7 | 5.0 |
| 12/23/2011 | 10 | 5.0 | 4.9 | 4.7 | 4.2 | 4.5 | 4.4 | 5.7 | 4.9 |
| 12/23/2011 | 11 | 5.0 | 4.8 | 4.8 | 4.2 | 4.5 | 4.3 | 5.8 | 4.9 |
| 12/23/2011 | 12 | 5.0 | 4.9 | 4.9 | 4.3 | 4.5 | 4.4 | 5.9 | 4.9 |
| 12/23/2011 | 13 | 5.0 | 4.9 | 5.1 | 4.3 | 4.5 | 4.5 | 5.9 | 5.2 |
| 12/23/2011 | 14 | 5.0 | 4.9 | 5.2 | 4.4 | 4.6 | 4.5 | 6.0 | 5.2 |
| 12/23/2011 | 15 | 5.0 | 4.9 | 5.3 | 4.5 | 4.7 | 4.6 | 6.1 | 5.3 |
| 12/23/2011 | 16 | 5.0 | 4.9 | 5.3 | 4.5 | 4.8 | 4.7 | 6.1 | 5.4 |
| 12/23/2011 | 17 | 5.0 | 4.9 | 5.2 | 4.5 | 4.9 | 4.7 | 6.1 | 5.3 |
| 12/23/2011 | 18 | 5.0 | 4.8 | 5.1 | 4.5 | 5.0 | 4.8 | 5.9 | 5.2 |
| 12/23/2011 | 19 | 5.0 | 4.8 | 4.9 | 4.6 | 4.9 | 4.8 | 5.8 | 4.9 |
| 12/23/2011 | 20 | 5.0 | 4.8 | 4.8 | 4.5 | 4.9 | 4.7 | 5.7 | 4.9 |
| 12/23/2011 | 21 | 5.0 | 4.8 | 4.8 | 4.5 | 4.7 | 4.6 | 5.7 | 5.0 |
| 12/23/2011 | 22 | 5.1 | 4.9 | 4.7 | 4.3 | 4.6 | 4.5 | 5.9 | 5.1 |
| 12/23/2011 | 23 | 5.1 | 4.9 | 4.7 | 4.1 | 4.5 | 4.4 | 6.1 | 5.1 |
| 12/23/2011 | 24 | 5.2 | 5.0 | 4.6 | 4.1 | 4.5 | 4.3 | 6.2 | 5.1 |
| 12/24/2011 | 1 | 5.2 | 5.0 | 4.6 | 4.1 | 4.4 | 4.2 | 6.2 | 5.3 |
| 12/24/2011 | 2 | 5.1 | 5.0 | 4.6 | 3.9 | 4.3 | 4.2 | 6.2 | 5.4 |
| 12/24/2011 | 3 | 5.1 | 5.0 | 4.6 | 3.9 | 4.3 | 4.1 | 6.3 | 5.4 |
| 12/24/2011 | 4 | 5.1 | 5.0 | 4.6 | 3.9 | 4.3 | 4.1 | 6.3 | 5.4 |
| 12/24/2011 | 5 | 5.1 | 4.9 | 4.7 | 3.9 | 4.2 | 4.1 | 6.4 | 5.3 |
| 12/24/2011 | 6 | 5.1 | 4.9 | 4.8 | 3.9 | 4.3 | 4.1 | 6.4 | 5.2 |
| 12/24/2011 | 7 | 5.1 | 4.9 | 4.8 | 3.9 | 4.3 | 4.1 | 6.4 | 5.4 |
| 12/24/2011 | 8 | 5.1 | 4.9 | 4.8 | 4.0 | 4.3 | 4.2 | 6.3 | 5.3 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/24/2011 | 9 | 5.0 | 4.9 | 4.7 | 4.0 | 4.4 | 4.2 | 6.1 | 5.4 |
| 12/24/2011 | 10 | 5.0 | 4.9 | 4.8 | 4.1 | 4.4 | 4.3 | 5.8 | 5.1 |
| 12/24/2011 | 11 | 5.0 | 5.0 | 4.8 | 4.2 | 4.5 | 4.4 | 5.8 | 5.0 |
| 12/24/2011 | 12 | 5.0 | 5.0 | 4.9 | 4.2 | 4.5 | 4.4 | 6.0 | 5.1 |
| 12/24/2011 | 13 | 5.1 | 5.0 | 5.1 | 4.4 | 4.6 | 4.5 | 6.2 | 5.2 |
| 12/24/2011 | 14 | 5.1 | 5.0 | 5.3 | 4.5 | 4.7 | 4.6 | 6.4 | 5.4 |
| 12/24/2011 | 15 | 5.1 | 5.0 | 5.4 | 4.6 | 4.7 | 4.6 | 6.4 | 5.5 |
| 12/24/2011 | 16 | 5.1 | 5.0 | 5.4 | 4.6 | 4.9 | 4.7 | 6.3 | 5.5 |
| 12/24/2011 | 17 | 5.0 | 5.0 | 5.3 | 4.6 | 5.0 | 4.8 | 6.3 | 5.6 |
| 12/24/2011 | 18 | 5.0 | 4.9 | 5.2 | 4.7 | 5.1 | 4.9 | 6.3 | 5.6 |
| 12/24/2011 | 19 | 5.0 | 4.9 | 5.0 | 4.7 | 5.0 | 4.9 | 6.3 | 5.4 |
| 12/24/2011 | 20 | 5.0 | 4.9 | 4.9 | 4.6 | 5.0 | 4.8 | 6.0 | 5.6 |
| 12/24/2011 | 21 | 5.0 | 4.9 | 4.9 | 4.5 | 4.8 | 4.8 | 5.7 | 5.0 |
| 12/24/2011 | 22 | 5.0 | 4.9 | 4.9 | 4.5 | 4.7 | 4.7 | 5.8 | 4.9 |
| 12/24/2011 | 23 | 5.0 | 4.8 | 4.9 | 4.4 | 4.7 | 4.6 | 5.9 | 4.9 |
| 12/24/2011 | 24 | 5.0 | 4.9 | 4.8 | 4.4 | 4.6 | 4.5 | 5.9 | 5.1 |
| 12/25/2011 | 1 | 5.0 | 4.9 | 4.7 | 4.4 | 4.6 | 4.4 | 6.0 | 5.2 |
| 12/25/2011 | 2 | 5.0 | 4.9 | 4.7 | 4.3 | 4.6 | 4.4 | 6.1 | 5.4 |
| 12/25/2011 | 3 | 5.0 | 4.9 | 4.8 | 4.2 | 4.5 | 4.4 | 6.1 | 5.5 |
| 12/25/2011 | 4 | 5.0 | 4.8 | 4.8 | 4.2 | 4.5 | 4.4 | 6.2 | 5.4 |
| 12/25/2011 | 5 | 5.0 | 4.8 | 4.8 | 4.2 | 4.5 | 4.4 | 6.3 | 5.5 |
| 12/25/2011 | 6 | 5.0 | 4.8 | 4.9 | 4.2 | 4.5 | 4.4 | 6.3 | 5.5 |
| 12/25/2011 | 7 | 4.9 | 4.8 | 4.9 | 4.1 | 4.5 | 4.4 | 6.3 | 5.5 |
| 12/25/2011 | 8 | 4.9 | 4.8 | 4.8 | 4.2 | 4.6 | 4.4 | 6.2 | 5.4 |
| 12/25/2011 | 9 | 4.9 | 4.8 | 4.8 | 4.2 | 4.6 | 4.4 | 5.9 | 5.2 |
| 12/25/2011 | 10 | 4.9 | 4.8 | 4.8 | 4.2 | 4.6 | 4.4 | 5.6 | 4.9 |
| 12/25/2011 | 11 | 4.9 | 4.8 | 4.9 | 4.3 | 4.6 | 4.5 | 5.7 | 4.8 |
| 12/25/2011 | 12 | 4.9 | 4.8 | 5.0 | 4.4 | 4.6 | 4.5 | 5.9 | 5.1 |
| 12/25/2011 | 13 | 4.9 | 4.9 | 5.1 | 4.5 | 4.7 | 4.6 | 6.1 | 5.4 |
| 12/25/2011 | 14 | 4.9 | 4.9 | 5.3 | 4.6 | 4.7 | 4.6 | 6.2 | N/A |
| 12/25/2011 | 15 | 5.0 | 4.9 | 5.4 | 4.6 | 4.8 | 4.7 | 6.2 | 5.4 |
| 12/25/2011 | 16 | 4.9 | 4.8 | 5.3 | 4.5 | 4.9 | 4.7 | 6.2 | 5.1 |
| 12/25/2011 | 17 | 4.9 | 4.8 | 5.2 | 4.7 | 5.0 | 4.8 | 6.2 | 5.1 |
| 12/25/2011 | 18 | 4.9 | 4.8 | 5.1 | 4.7 | 5.1 | 4.8 | 6.2 | 5.5 |
| 12/25/2011 | 19 | 4.9 | 4.8 | 4.9 | 4.7 | 5.0 | 4.8 | 6.2 | 5.3 |
| 12/25/2011 | 20 | 4.9 | 4.8 | 4.9 | 4.6 | 4.9 | 4.8 | 6.2 | 5.1 |
| 12/25/2011 | 21 | 4.9 | 4.8 | 4.9 | 4.6 | 4.8 | 4.7 | 6.0 | 5.1 |
| 12/25/2011 | 22 | 4.9 | 4.8 | 4.9 | 4.5 | 4.7 | 4.6 | 5.7 | 4.9 |
| 12/25/2011 | 23 | 4.9 | 4.8 | 4.9 | 4.4 | 4.7 | 4.6 | 5.7 | 4.9 |
| 12/25/2011 | 24 | 4.9 | 4.8 | 4.8 | 4.4 | 4.7 | 4.5 | 5.8 | 5.0 |
| 12/26/2011 | 1 | 4.9 | 4.7 | 4.7 | 4.4 | 4.7 | 4.5 | 5.9 | 5.2 |
| 12/26/2011 | 2 | 4.8 | 4.7 | 4.6 | 4.2 | 4.6 | 4.5 | 6.0 | 5.2 |
| 12/26/2011 | 3 | 4.8 | 4.7 | 4.5 | 4.2 | 4.5 | 4.4 | 6.1 | 5.1 |
| 12/26/2011 | 4 | 4.8 | 4.7 | 4.5 | 4.1 | 4.4 | 4.3 | 6.1 | 5.2 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/26/2011 | 5 | 4.8 | 4.7 | 4.6 | 4.1 | 4.4 | 4.2 | 6.1 | 5.3 |
| 12/26/2011 | 6 | 4.8 | 4.7 | 4.6 | 4.0 | 4.3 | 4.2 | 6.1 | 5.2 |
| 12/26/2011 | 7 | 4.8 | 4.6 | 4.7 | 4.1 | 4.3 | 4.2 | 6.1 | 5.4 |
| 12/26/2011 | 8 | 4.8 | 4.6 | 4.7 | 4.2 | 4.4 | 4.2 | 6.0 | 5.3 |
| 12/26/2011 | 9 | 4.7 | 4.6 | 4.7 | 4.2 | 4.4 | 4.2 | 5.9 | 5.2 |
| 12/26/2011 | 10 | 4.7 | 4.6 | 4.7 | 4.2 | 4.4 | 4.3 | 5.5 | 4.7 |
| 12/26/2011 | 11 | 4.7 | 4.6 | 4.8 | 4.3 | 4.5 | 4.4 | 5.4 | 4.6 |
| 12/26/2011 | 12 | 4.6 | 4.6 | 4.9 | 4.4 | 4.5 | 4.4 | 5.6 | 4.7 |
| 12/26/2011 | 13 | 4.6 | 4.6 | 4.9 | 4.4 | 4.6 | 4.4 | 5.8 | 4.9 |
| 12/26/2011 | 14 | 4.6 | 4.6 | 5.1 | 4.5 | 4.7 | 4.6 | 6.0 | 5.2 |
| 12/26/2011 | 15 | 4.6 | 4.6 | 5.2 | 4.6 | 4.7 | 4.6 | 6.0 | 4.5 |
| 12/26/2011 | 16 | 4.6 | 4.6 | 5.2 | 4.6 | 4.8 | 4.7 | 6.0 | 5.3 |
| 12/26/2011 | 17 | 4.6 | 4.5 | 5.2 | 4.6 | 4.9 | 4.7 | 6.0 | 5.3 |
| 12/26/2011 | 18 | 4.6 | 4.5 | 5.0 | 4.6 | 5.0 | 4.8 | 6.0 | 5.3 |
| 12/26/2011 | 19 | 4.6 | 4.5 | 4.9 | 4.7 | 5.0 | 4.8 | 6.0 | N/A |
| 12/26/2011 | 20 | 4.6 | 4.5 | 4.8 | 4.7 | 4.9 | 4.8 | 6.0 | N/A |
| 12/26/2011 | 21 | 4.6 | 4.5 | 4.8 | 4.6 | 4.8 | 4.8 | 5.8 | 5.1 |
| 12/26/2011 | 22 | 4.6 | 4.5 | 4.8 | 4.5 | 4.7 | 4.7 | 5.4 | 4.6 |
| 12/26/2011 | 23 | 4.6 | 4.4 | 4.7 | 4.4 | 4.7 | 4.6 | 5.4 | 4.5 |
| 12/26/2011 | 24 | 4.5 | 4.4 | 4.7 | 4.3 | 4.6 | 4.5 | 5.5 | N/A |
| 12/27/2011 | 1 | 4.5 | 4.4 | 4.6 | 4.3 | 4.6 | 4.4 | 5.7 | N/A |
| 12/27/2011 | 2 | 4.5 | 4.4 | 4.5 | 4.2 | 4.5 | 4.4 | 5.8 | N/A |
| 12/27/2011 | 3 | 4.5 | 4.4 | 4.4 | 4.1 | 4.4 | 4.3 | 5.9 | N/A |
| 12/27/2011 | 4 | 4.5 | 4.4 | 4.4 | 4.0 | 4.4 | 4.2 | 5.9 | N/A |
| 12/27/2011 | 5 | 4.5 | 4.4 | 4.4 | 4.0 | 4.3 | 4.2 | 5.8 | 4.9 |
| 12/27/2011 | 6 | 4.5 | 4.4 | 4.4 | 3.9 | 4.2 | 4.1 | 5.8 | N/A |
| 12/27/2011 | 7 | 4.5 | 4.4 | 4.4 | 3.8 | 4.1 | 4.0 | 5.4 | 4.9 |
| 12/27/2011 | 8 | 4.5 | 4.4 | 4.4 | 3.8 | 4.1 | 4.0 | 5.2 | 4.4 |
| 12/27/2011 | 9 | 4.6 | 4.4 | 4.4 | 3.9 | 4.1 | 4.0 | 5.4 | 4.5 |
| 12/27/2011 | 10 | 4.7 | 4.5 | 4.5 | 3.9 | 4.2 | 4.0 | 5.6 | 4.6 |
| 12/27/2011 | 11 | 4.8 | 4.6 | 4.6 | 4.0 | 4.3 | 4.1 | 5.7 | 4.8 |
| 12/27/2011 | 12 | 5.0 | 4.8 | 4.7 | 4.2 | 4.4 | 4.3 | 5.9 | 4.6 |
| 12/27/2011 | 13 | 5.1 | 4.9 | 4.9 | 4.3 | 4.4 | 4.3 | 5.9 | 5.1 |
| 12/27/2011 | 14 | 5.1 | 5.0 | 5.0 | 4.4 | 4.5 | 4.4 | 5.9 | 5.0 |
| 12/27/2011 | 15 | 5.1 | 5.1 | 5.1 | 4.5 | 4.7 | 4.5 | 6.0 | 5.1 |
| 12/27/2011 | 16 | 5.0 | 5.0 | 5.2 | 4.6 | 4.8 | 4.6 | 6.0 | 5.2 |
| 12/27/2011 | 17 | 5.0 | 5.0 | 5.2 | 4.6 | 4.9 | 4.7 | 6.0 | 5.2 |
| 12/27/2011 | 18 | 5.0 | 5.0 | 5.2 | 4.7 | 4.9 | 4.8 | 6.0 | 5.2 |
| 12/27/2011 | 19 | 5.0 | 4.9 | 5.1 | 4.7 | 5.0 | 4.8 | 5.9 | 5.1 |
| 12/27/2011 | 20 | 5.1 | 5.0 | 5.1 | 4.7 | 5.0 | 4.9 | 5.8 | 5.1 |
| 12/27/2011 | 21 | 5.1 | 5.0 | 5.1 | 4.7 | 5.0 | 4.9 | 5.9 | 5.1 |
| 12/27/2011 | 22 | 5.1 | 5.1 | 5.1 | 4.7 | 5.0 | 4.9 | 6.0 | 5.1 |
| 12/27/2011 | 23 | 5.2 | 5.1 | 5.1 | 4.7 | 4.9 | 4.8 | 6.1 | 5.2 |
| 12/27/2011 | 24 | 5.2 | 5.1 | 5.1 | 4.7 | 4.9 | 4.8 | 6.2 | 5.2 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/28/2011 | 1 | 5.2 | 5.2 | 5.1 | 4.7 | 4.9 | 4.8 | 6.2 | 5.4 |
| 12/28/2011 | 2 | 5.2 | 5.2 | 5.2 | 4.7 | 5.0 | 4.8 | 6.3 | 5.3 |
| 12/28/2011 | 3 | 5.2 | 5.2 | 5.2 | 4.7 | 5.0 | 4.9 | 6.3 | 5.2 |
| 12/28/2011 | 4 | 5.2 | 5.2 | 5.2 | 4.7 | 5.0 | 4.9 | 6.3 | 5.2 |
| 12/28/2011 | 5 | 5.2 | 5.1 | 5.3 | 4.8 | 5.1 | 4.9 | 6.4 | N/A |
| 12/28/2011 | 6 | 5.2 | 5.1 | 5.3 | 4.8 | 5.1 | 4.9 | 6.4 | 5.4 |
| 12/28/2011 | 7 | 5.2 | 5.1 | 5.3 | 4.8 | 5.1 | 5.0 | 6.4 | 5.4 |
| 12/28/2011 | 8 | 5.2 | 5.1 | 5.2 | 4.8 | 5.1 | 4.9 | 6.3 | 5.3 |
| 12/28/2011 | 9 | 5.1 | 5.1 | 5.2 | 4.8 | 5.1 | 4.9 | 6.2 | 5.4 |
| 12/28/2011 | 10 | 5.1 | 5.1 | 5.1 | 4.8 | 5.1 | 5.0 | 6.1 | 5.2 |
| 12/28/2011 | 11 | N/A | 5.1 | 5.2 | 5.0 | 5.1 | 5.0 | 6.1 | 5.2 |
| 12/28/2011 | 12 | N/A | 5.2 | 5.5 | 5.2 | 5.1 | 5.1 | 6.2 | 5.3 |
| 12/28/2011 | 13 | N/A | 5.2 | 5.8 | 5.2 | 5.2 | 5.2 | 6.2 | 5.3 |
| 12/28/2011 | 14 | N/A | 5.2 | 5.9 | 5.3 | 5.3 | 5.3 | 6.3 | 5.5 |
| 12/28/2011 | 15 | 5.2 | 5.2 | 6.1 | 5.4 | 5.5 | 5.4 | 6.4 | 5.6 |
| 12/28/2011 | 16 | 5.2 | 5.2 | 6.1 | 5.5 | 5.7 | 5.5 | 6.4 | 5.6 |
| 12/28/2011 | 17 | 5.3 | 5.2 | 6.0 | 5.7 | 5.9 | 5.8 | 6.5 | 5.7 |
| 12/28/2011 | 18 | 5.3 | 5.2 | 5.9 | 5.8 | 6.0 | 5.9 | 6.6 | 5.6 |
| 12/28/2011 | 19 | 5.3 | 5.2 | 5.8 | 5.9 | 6.1 | 6.0 | 6.6 | 5.7 |
| 12/28/2011 | 20 | 5.3 | 5.2 | 5.8 | 5.9 | 6.0 | 6.0 | 6.7 | 5.6 |
| 12/28/2011 | 21 | 5.3 | 5.2 | 5.7 | 5.9 | 5.9 | 5.9 | 6.7 | 5.6 |
| 12/28/2011 | 22 | 5.3 | 5.2 | 5.6 | 5.8 | 5.9 | 5.8 | 6.7 | 5.6 |
| 12/28/2011 | 23 | 5.3 | 5.3 | 5.7 | 5.8 | 5.9 | 5.8 | 6.7 | 5.6 |
| 12/28/2011 | 24 | 5.3 | 5.2 | 5.6 | 5.7 | 5.8 | 5.7 | 6.7 | 5.8 |
| 12/29/2011 | 1 | 5.3 | 5.2 | 5.6 | 5.6 | 5.8 | 5.7 | 6.7 | 5.6 |
| 12/29/2011 | 2 | 5.2 | 5.2 | 5.6 | 5.6 | 5.7 | 5.6 | 6.7 | 5.4 |
| 12/29/2011 | 3 | 5.2 | 5.2 | 5.5 | 5.5 | 5.7 | 5.6 | 6.7 | 5.6 |
| 12/29/2011 | 4 | 5.2 | 5.2 | 5.5 | 5.5 | 5.7 | 5.6 | 6.7 | 5.8 |
| 12/29/2011 | 5 | 5.2 | 5.2 | 5.5 | 5.5 | 5.6 | 5.5 | 6.6 | 5.8 |
| 12/29/2011 | 6 | 5.2 | 5.2 | 5.5 | 5.4 | 5.6 | 5.5 | 6.6 | 5.6 |
| 12/29/2011 | 7 | 5.2 | 5.1 | 5.4 | 5.3 | 5.5 | 5.4 | 6.6 | 5.5 |
| 12/29/2011 | 8 | 5.2 | 5.1 | 5.3 | 5.3 | 5.5 | 5.4 | 6.4 | 5.6 |
| 12/29/2011 | 9 | 5.2 | 5.1 | 5.2 | 5.2 | 5.5 | 5.3 | 6.1 | 5.2 |
| 12/29/2011 | 10 | 5.2 | 5.1 | 5.1 | 5.2 | 5.4 | 5.3 | 6.2 | 5.2 |
| 12/29/2011 | 11 | 5.2 | 5.1 | 5.2 | 5.6 | 5.4 | 5.3 | 6.3 | 5.4 |
| 12/29/2011 | 12 | 5.2 | 5.2 | 5.4 | 5.6 | 5.2 | 5.3 | 6.3 | 5.4 |
| 12/29/2011 | 13 | 5.2 | 5.2 | 5.7 | 5.4 | 5.3 | 5.3 | 6.4 | 5.5 |
| 12/29/2011 | 14 | 5.2 | 5.2 | 5.9 | 5.4 | 5.3 | 5.3 | 6.5 | 5.6 |
| 12/29/2011 | 15 | 5.2 | 5.2 | 5.9 | 5.4 | 5.6 | 5.4 | 6.5 | 5.6 |
| 12/29/2011 | 16 | 5.2 | 5.2 | 5.9 | 5.6 | 5.8 | 5.6 | 6.6 | 5.6 |
| 12/29/2011 | 17 | 5.2 | 5.2 | 5.8 | 5.8 | 6.0 | 5.8 | 6.7 | 5.8 |
| 12/29/2011 | 18 | 5.2 | 5.2 | 5.8 | 5.8 | 6.0 | 5.9 | 6.7 | 5.7 |
| 12/29/2011 | 19 | 5.1 | 5.2 | 5.7 | 5.8 | 6.0 | 5.9 | 6.7 | 5.7 |
| 12/29/2011 | 20 | 5.1 | 5.1 | 5.7 | 5.8 | 5.9 | 5.9 | 6.7 | 5.8 |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/29/2011 | 21 | 5.1 | 5.1 | 5.7 | 5.7 | 5.9 | 5.8 | 6.8 | 5.8 |
| 12/29/2011 | 22 | 5.1 | 5.1 | 5.6 | 5.6 | 5.8 | 5.7 | 6.8 | 5.7 |
| 12/29/2011 | 23 | 5.1 | 5.1 | 5.5 | 5.5 | 5.7 | 5.6 | 6.8 | 5.7 |
| 12/29/2011 | 24 | 5.1 | 5.0 | 5.3 | 5.4 | 5.6 | 5.5 | 6.8 | 5.2 |
| 12/30/2011 | 1 | 5.1 | 5.0 | 5.1 | 5.3 | 5.5 | 5.4 | 6.9 | 5.7 |
| 12/30/2011 | 2 | 5.0 | 5.0 | 5.1 | 5.2 | 5.4 | 5.3 | 6.8 | N/A |
| 12/30/2011 | 3 | 5.0 | 5.0 | 5.1 | 5.1 | 5.2 | 5.2 | 6.8 | 5.8 |
| 12/30/2011 | 4 | 5.0 | 4.9 | 5.1 | 4.9 | 5.1 | 5.1 | 6.7 | 5.7 |
| 12/30/2011 | 5 | 5.0 | 4.9 | 5.1 | 4.8 | 5.1 | 4.9 | 6.7 | 5.3 |
| 12/30/2011 | 6 | 5.0 | 4.9 | 5.2 | 4.8 | 5.0 | 4.9 | 6.6 | 5.4 |
| 12/30/2011 | 7 | 5.0 | 4.9 | 5.2 | 4.8 | 5.0 | 4.8 | 6.6 | 5.4 |
| 12/30/2011 | 8 | 4.9 | 4.9 | 5.1 | 4.7 | 5.0 | 4.8 | 6.4 | 5.4 |
| 12/30/2011 | 9 | 4.9 | 4.8 | 5.1 | 4.7 | 5.0 | 4.8 | 6.0 | 5.1 |
| 12/30/2011 | 10 | 4.9 | 4.8 | 5.0 | 4.7 | 5.1 | 4.9 | 6.1 | 5.2 |
| 12/30/2011 | 11 | 4.9 | 4.8 | 5.1 | 5.2 | 5.1 | 5.0 | 6.2 | N/A |
| 12/30/2011 | 12 | 4.9 | 4.8 | 5.4 | 5.7 | 5.1 | 5.1 | 6.3 | 5.2 |
| 12/30/2011 | 13 | 4.9 | 4.9 | 5.6 | 5.5 | 5.1 | 5.2 | 6.4 | 5.4 |
| 12/30/2011 | 14 | 4.9 | 4.9 | 5.9 | 5.2 | 5.2 | 5.2 | 6.4 | 5.5 |
| 12/30/2011 | 15 | 5.0 | 4.9 | 5.9 | 5.3 | 5.4 | 5.3 | 6.5 | 5.3 |
| 12/30/2011 | 16 | 5.0 | 4.9 | 5.7 | 5.4 | 5.6 | 5.4 | 6.6 | 5.7 |
| 12/30/2011 | 17 | 5.0 | 4.9 | 5.5 | 5.5 | 5.8 | 5.6 | 6.7 | 5.5 |
| 12/30/2011 | 18 | 5.0 | 4.9 | 5.3 | 5.6 | 5.8 | 5.7 | 6.7 | 5.5 |
| 12/30/2011 | 19 | 5.0 | 4.9 | 5.1 | 5.4 | 5.6 | 5.5 | 6.7 | 5.4 |
| 12/30/2011 | 20 | 5.0 | 4.9 | 4.9 | 5.2 | 5.4 | 5.3 | 6.7 | N/A |
| 12/30/2011 | 21 | 4.9 | 4.8 | 4.8 | 5.0 | 5.2 | 5.1 | 6.7 | 5.2 |
| 12/30/2011 | 22 | 4.9 | 4.8 | 4.7 | 4.7 | 5.0 | 4.8 | 6.7 | 5.2 |
| 12/30/2011 | 23 | 4.9 | 4.8 | 4.7 | 4.5 | 4.8 | 4.7 | 6.7 | 5.3 |
| 12/30/2011 | 24 | 4.9 | 4.8 | 4.6 | 4.4 | 4.7 | 4.6 | 6.7 | 5.5 |
| 12/31/2011 | 1 | 4.9 | 4.7 | 4.6 | 4.2 | 4.6 | 4.4 | 6.7 | 5.3 |
| 12/31/2011 | 2 | 4.9 | 4.7 | 4.5 | 4.1 | 4.5 | 4.3 | 6.6 | 5.2 |
| 12/31/2011 | 3 | 4.8 | 4.7 | 4.5 | 4.1 | 4.4 | 4.2 | 6.6 | 5.3 |
| 12/31/2011 | 4 | 4.8 | 4.7 | 4.5 | 4.0 | 4.4 | 4.2 | 6.5 | 5.2 |
| 12/31/2011 | 5 | 4.8 | 4.7 | 4.4 | 4.0 | 4.3 | 4.1 | 6.5 | 5.2 |
| 12/31/2011 | 6 | 4.8 | 4.7 | 4.4 | 3.9 | 4.3 | 4.1 | 6.4 | 5.3 |
| 12/31/2011 | 7 | 4.8 | 4.6 | 4.4 | 3.9 | 4.2 | 4.1 | 6.4 | 5.4 |
| 12/31/2011 | 8 | 4.7 | 4.6 | 4.3 | 3.7 | 4.2 | 4.0 | 6.2 | 5.4 |
| 12/31/2011 | 9 | 4.8 | 4.6 | 4.3 | 3.7 | 4.2 | 4.0 | 5.8 | 4.8 |
| 12/31/2011 | 10 | 4.8 | 4.7 | 4.4 | 3.8 | 4.1 | 4.0 | 5.8 | N/A |
| 12/31/2011 | 11 | 4.8 | 4.8 | 4.6 | 4.1 | 4.2 | 4.1 | 5.9 | 5.1 |
| 12/31/2011 | 12 | 4.8 | 4.8 | 4.9 | 4.3 | 4.2 | 4.2 | 6.0 | 5.1 |
| 12/31/2011 | 13 | 4.8 | 4.8 | 5.2 | 4.4 | 4.4 | 4.3 | 6.1 | 5.2 |
| 12/31/2011 | 14 | 4.9 | 4.8 | 5.3 | 4.4 | 4.6 | 4.4 | 6.2 | 5.2 |
| 12/31/2011 | 15 | 4.9 | 4.8 | 5.4 | 4.5 | 4.8 | 4.6 | 6.3 | 4.7 |
| 12/31/2011 | 16 | 4.9 | 4.8 | 5.3 | 4.6 | 5.0 | 4.8 | 6.4 | N/A |

# 2011 Chelan River Temperature Hourly Data
# 4th Quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| 12/31/2011 | 17 | 4.9 | 4.8 | 5.2 | 4.7 | 5.1 | 4.9 | 6.4 | 5.1 |
| 12/31/2011 | 18 | 4.9 | 4.8 | 5.0 | 4.7 | 5.1 | 4.9 | 6.4 | 5.2 |
| 12/31/2011 | 19 | 4.9 | 4.8 | 4.8 | 4.6 | 5.1 | 4.9 | 6.4 | 5.1 |
| 12/31/2011 | 20 | 4.9 | 4.8 | 4.7 | 4.5 | 4.9 | 4.8 | 6.4 | 5.3 |
| 12/31/2011 | 21 | 4.9 | 4.8 | 4.6 | 4.4 | 4.8 | 4.7 | 6.5 | N/A |
| 12/31/2011 | 22 | 4.9 | 4.8 | 4.6 | 4.3 | 4.6 | 4.5 | 6.5 | N/A |
| 12/31/2011 | 23 | 4.9 | 4.8 | 4.6 | 4.2 | 4.5 | 4.4 | 6.5 | 5.1 |
| 12/31/2011 | 24 | 4.8 | 4.7 | 4.6 | 4.1 | 4.5 | 4.3 | 6.5 | N/A |