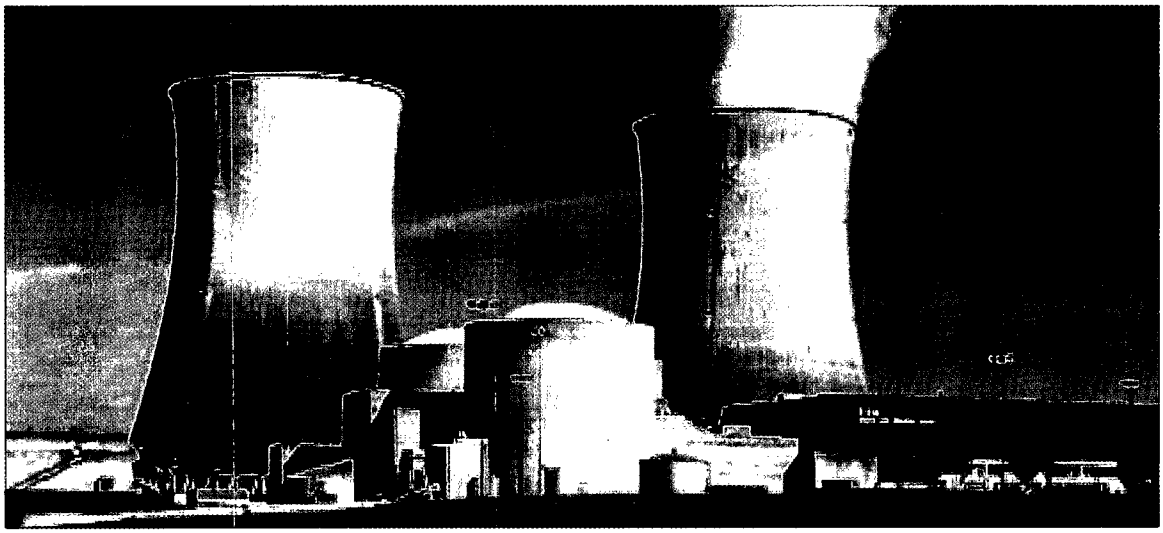
ENCLOSURE 2

APPENDIX A

HYDROTHERMAL EFFECTS ON THE ICHTHYOPLANKTON FROM THE WATTS BAR NUCLEAR PLANT SUPPLEMENTAL CONDENSER COOLING WATER OUTFALL IN UPPER CHICKAMAUGA RESERVOIR

Hydrothermal Effects on the Ichthyoplankton from the Watts Bar Nuclear Plant Supplemental Condenser Cooling Water Outfall in Upper Chickamauga Reservoir

Appendix A



Tennessee Valley Authority
Biological and Water Resources
Knoxville, Tennessee

February 2011

Table of Figures

Figure 1-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US1** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....8

Figure 2-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US2** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....9

Figure 3-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US3** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....10

Figure 4-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O1** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....11

Figure 5-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O2** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....12

Figure 6-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O3** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....13

Figure 7-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O4** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....14

Figure 8-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O5** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....15

Figure 9-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ1** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.....16

Figure 10-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ2** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010. 17

Figure 11-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ3** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010. 18

Figure 12-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ4** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010. 19

Figure 13-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ5** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010. 20

Figure 14-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US1** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 21

Figure 15-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US2** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 22

Figure 16-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US3** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 23

Figure 17-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O1** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 24

Figure 18-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O2** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 25

Figure 19-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures

(°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O3** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 26

Figure 20-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O4** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 27

Figure 21-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O5** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 28

Figure 22-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ1** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 29

Figure 23-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ2** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 30

Figure 24-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ3** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 31

Figure 25-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ4** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 32

Figure 26-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ5** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010. 33

Figure 27-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US1** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 34

Figure 28-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric

Dam, at the SCCW discharge, and at HOBO station **H-US2** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 35

Figure 29-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US3** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 36

Figure 30-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O1** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 37

Figure 31-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O2** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 38

Figure 32-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O3** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 39

Figure 33-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O4** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 40

Figure 34-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O5** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 41

Figure 35-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ1** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 42

Figure 36-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ2** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 43

Figure 37-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ3** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 44

Figure 38-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ4** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 45

Figure 39-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ5** during the **daytime** test between 07:00 and 15:00 EST, August 25, 2010. 46

Figure 40-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US1** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 47

Figure 41-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US2** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 48

Figure 42-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US3** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 49

Figure 43-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O1** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 50

Figure 44-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O2** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 51

Figure 45-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O3** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 52

Figure 46-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O4** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 53

Figure 47-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures

(°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O5** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 54

Figure 48-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ1** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 55

Figure 49-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ2** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 56

Figure 50-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ3** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 57

Figure 51-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ4** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010. 58

Figure 52-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 1-minute intervals (average 15-minute intervals shown) at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ5** during the **nighttime** test between 21:00 and 05:00 EST, August 26-27, 2010 59

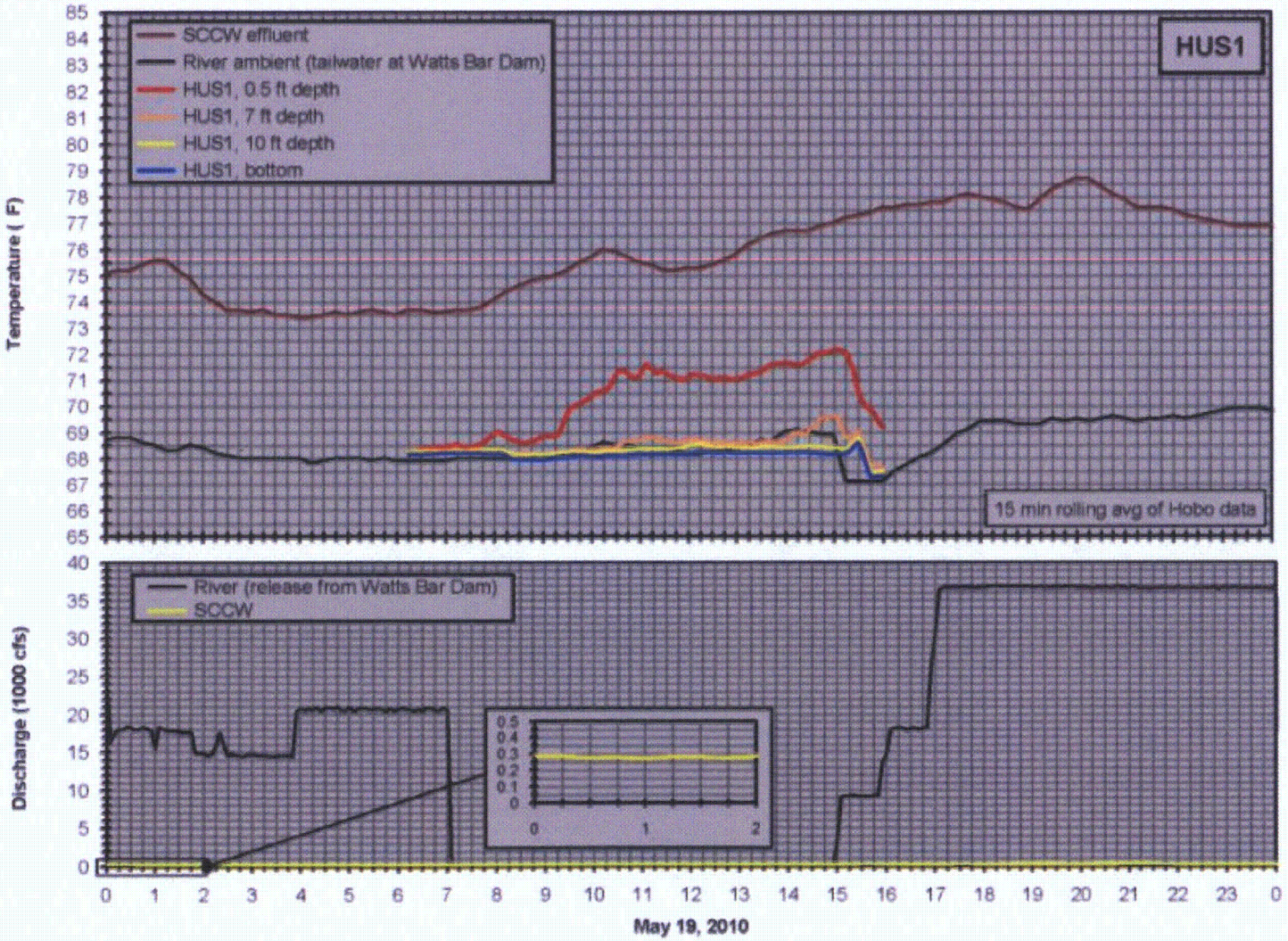


Figure 1-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US1** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

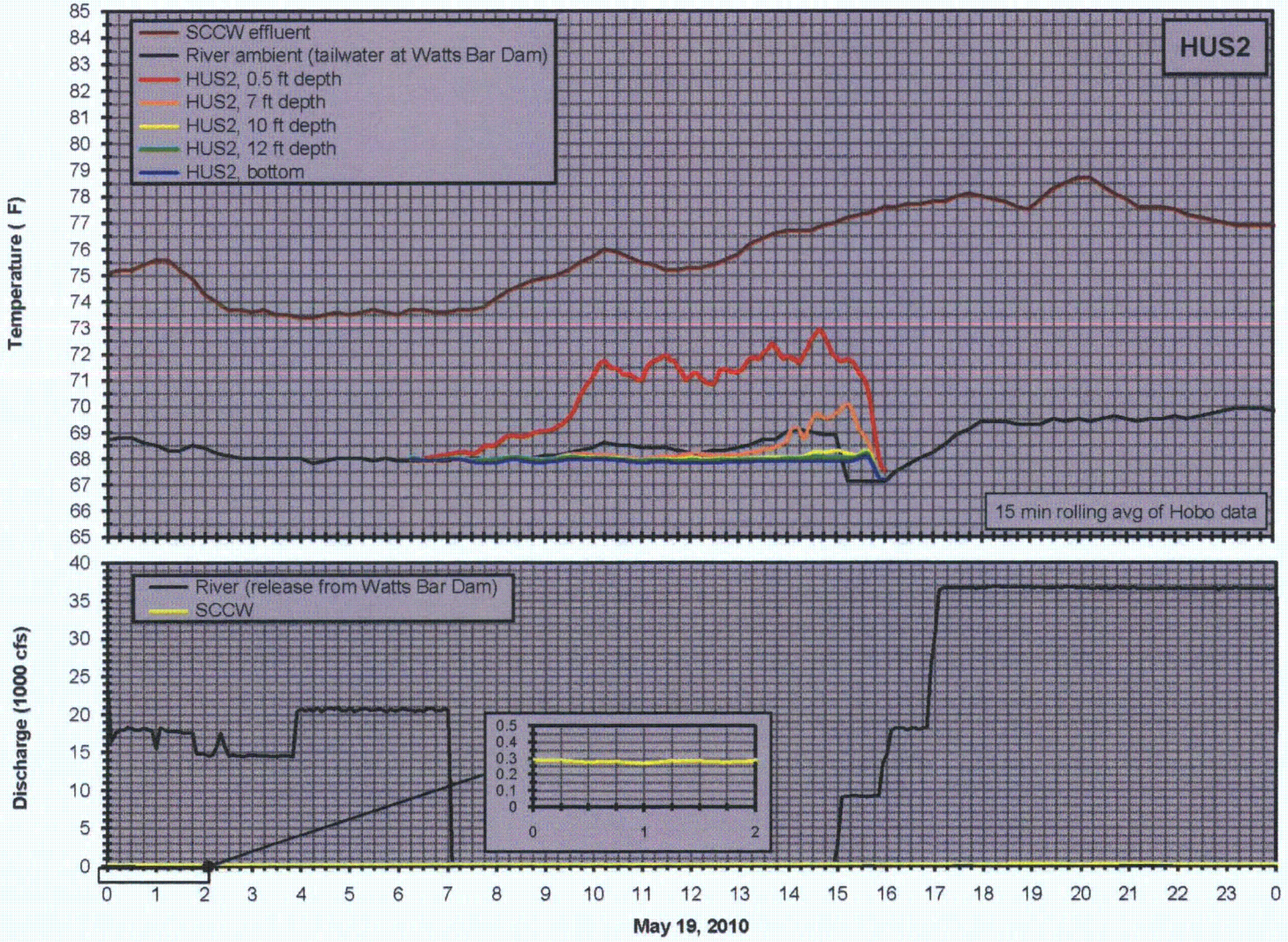


Figure 2-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US2** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

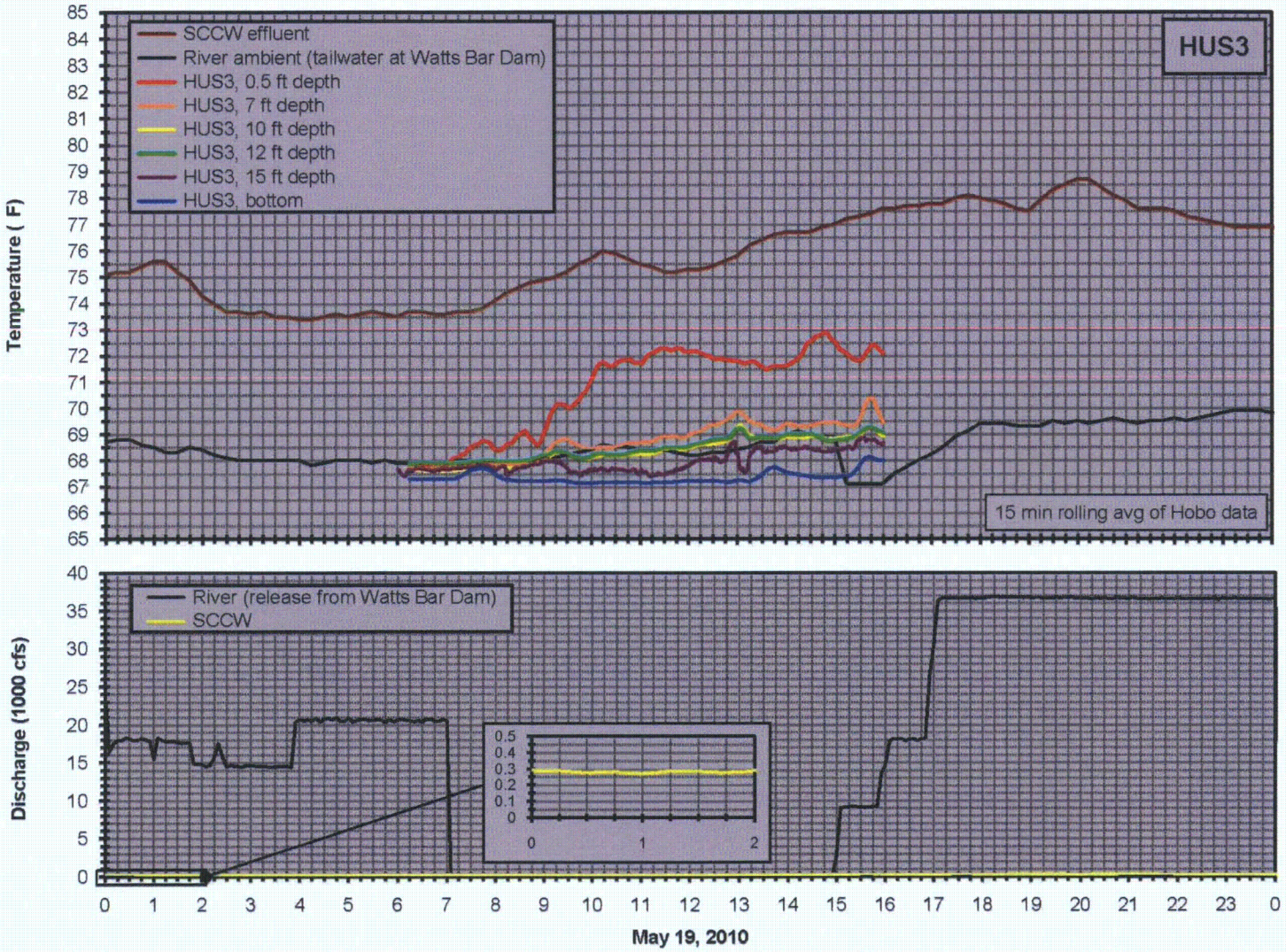


Figure 3-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US3** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

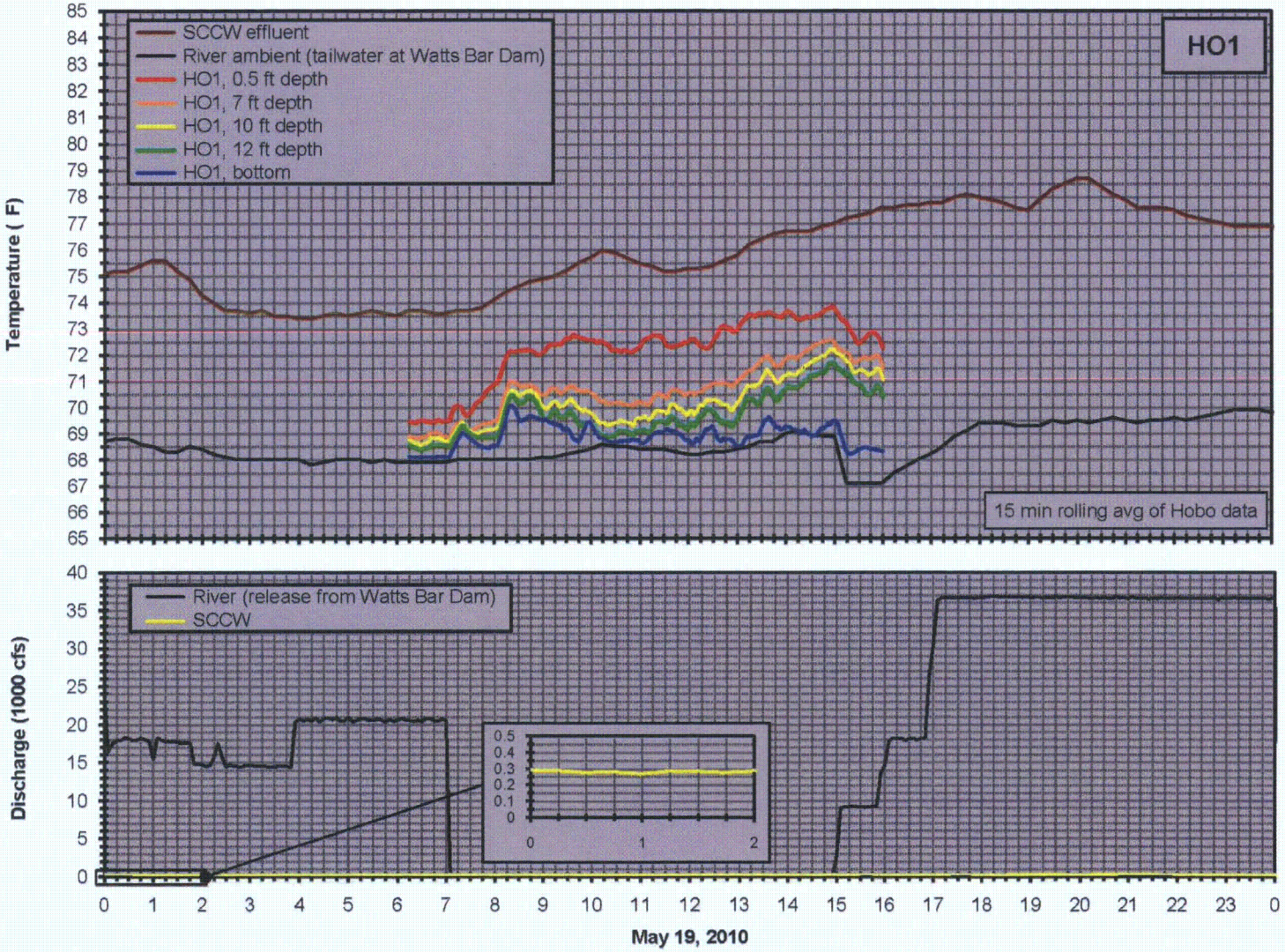


Figure 4-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O1** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

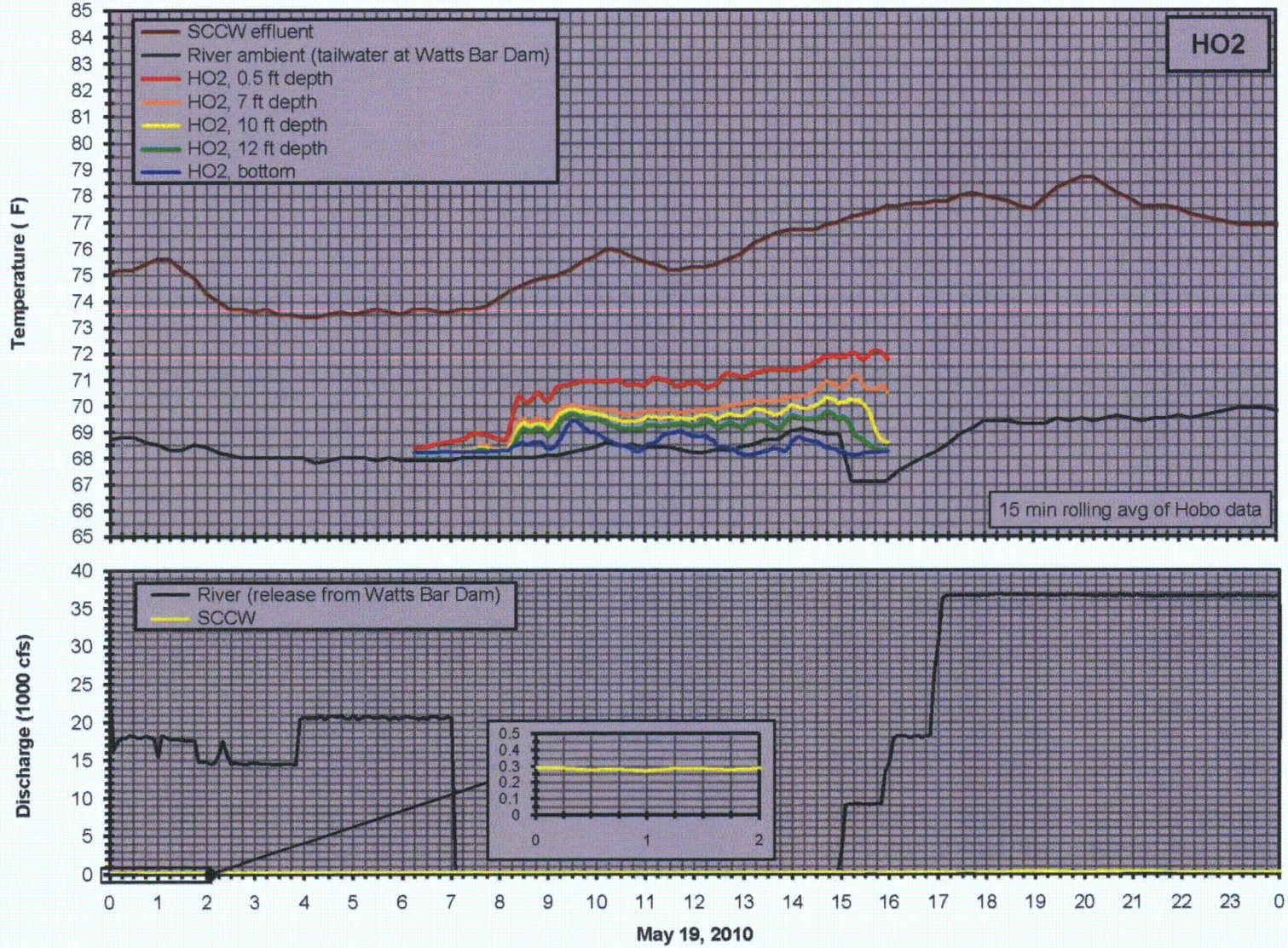


Figure 5-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O2** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

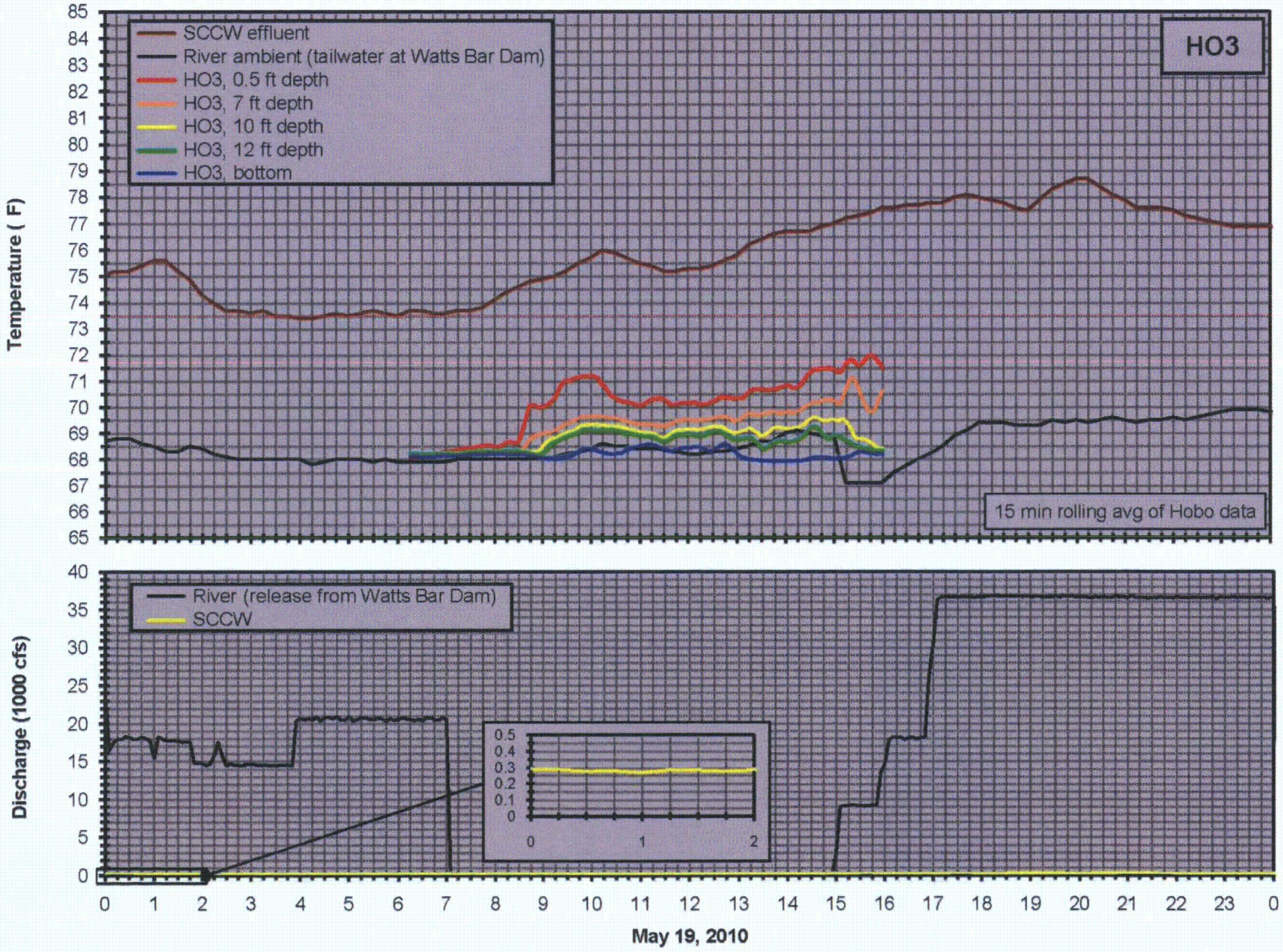


Figure 6-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O3** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

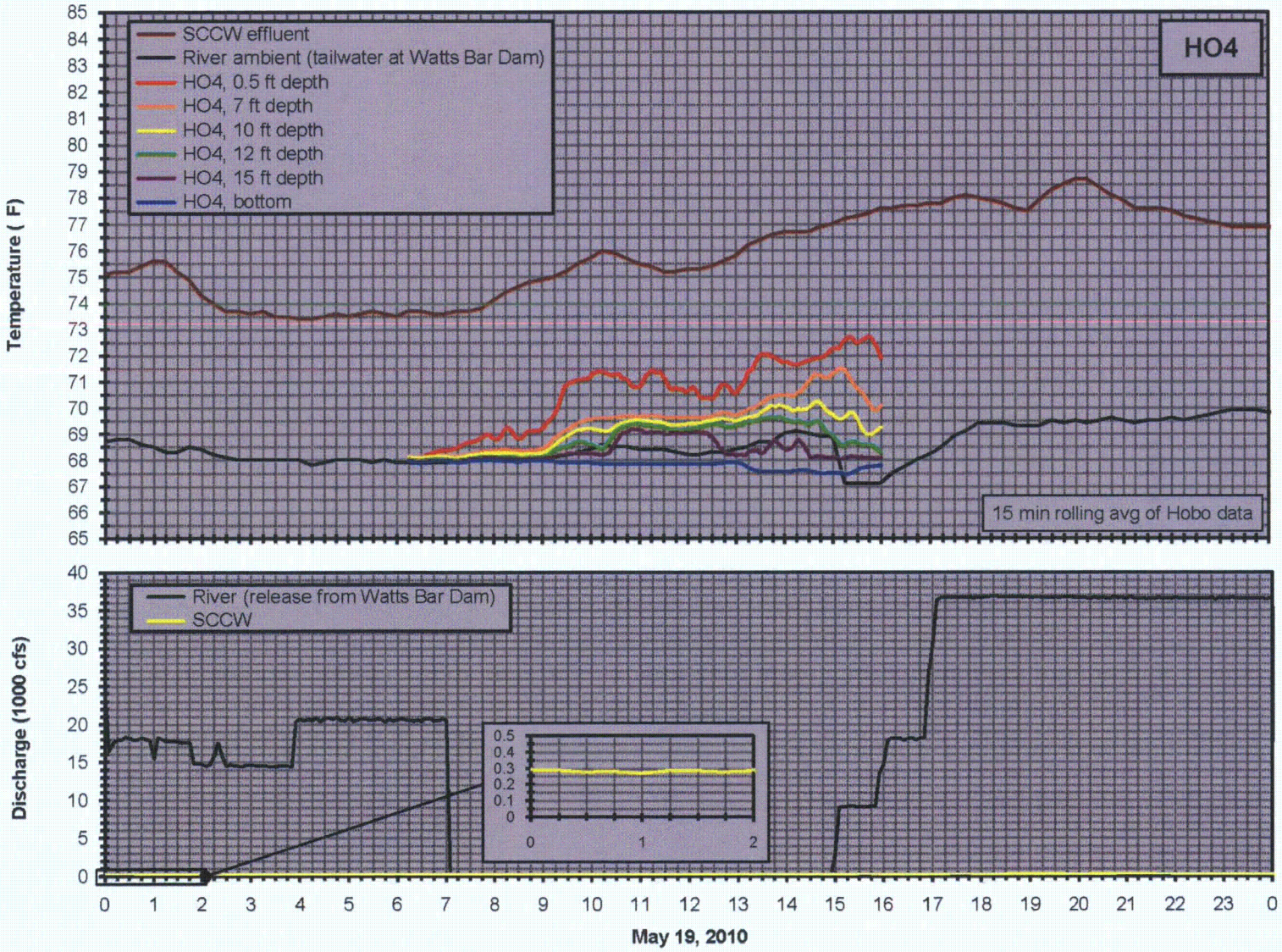


Figure 7-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O4** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

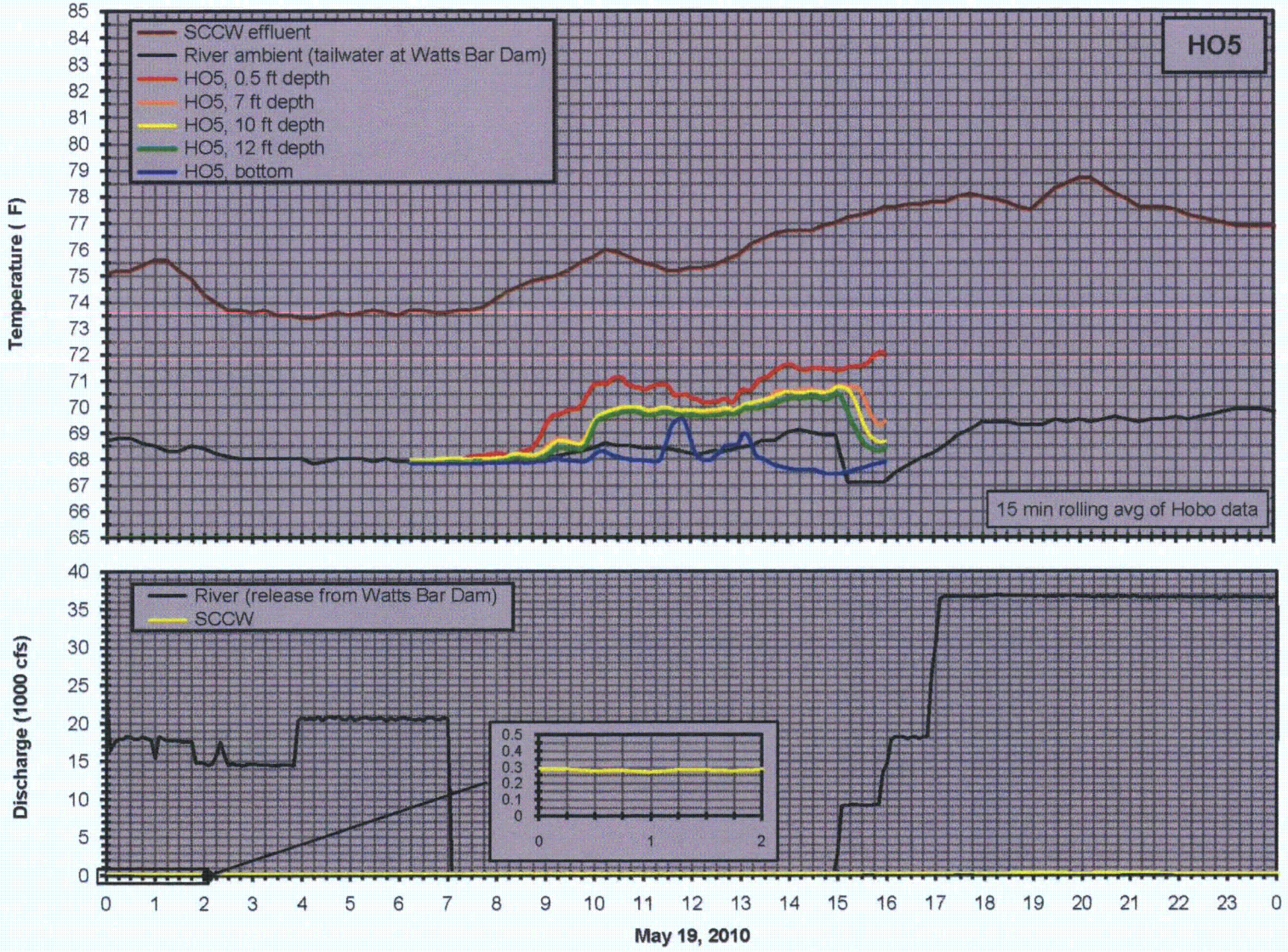


Figure 8-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O5** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

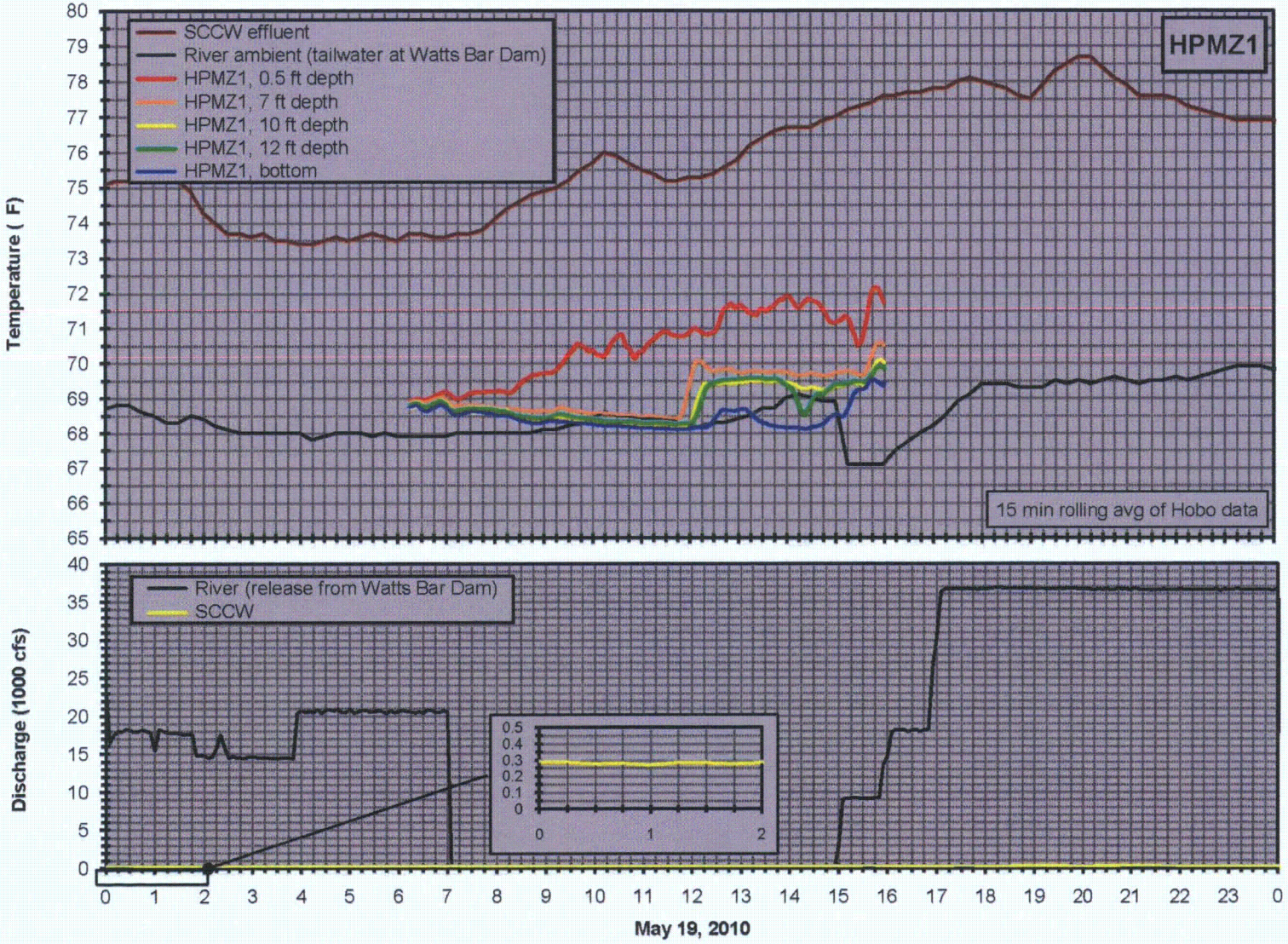


Figure 9-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ1** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

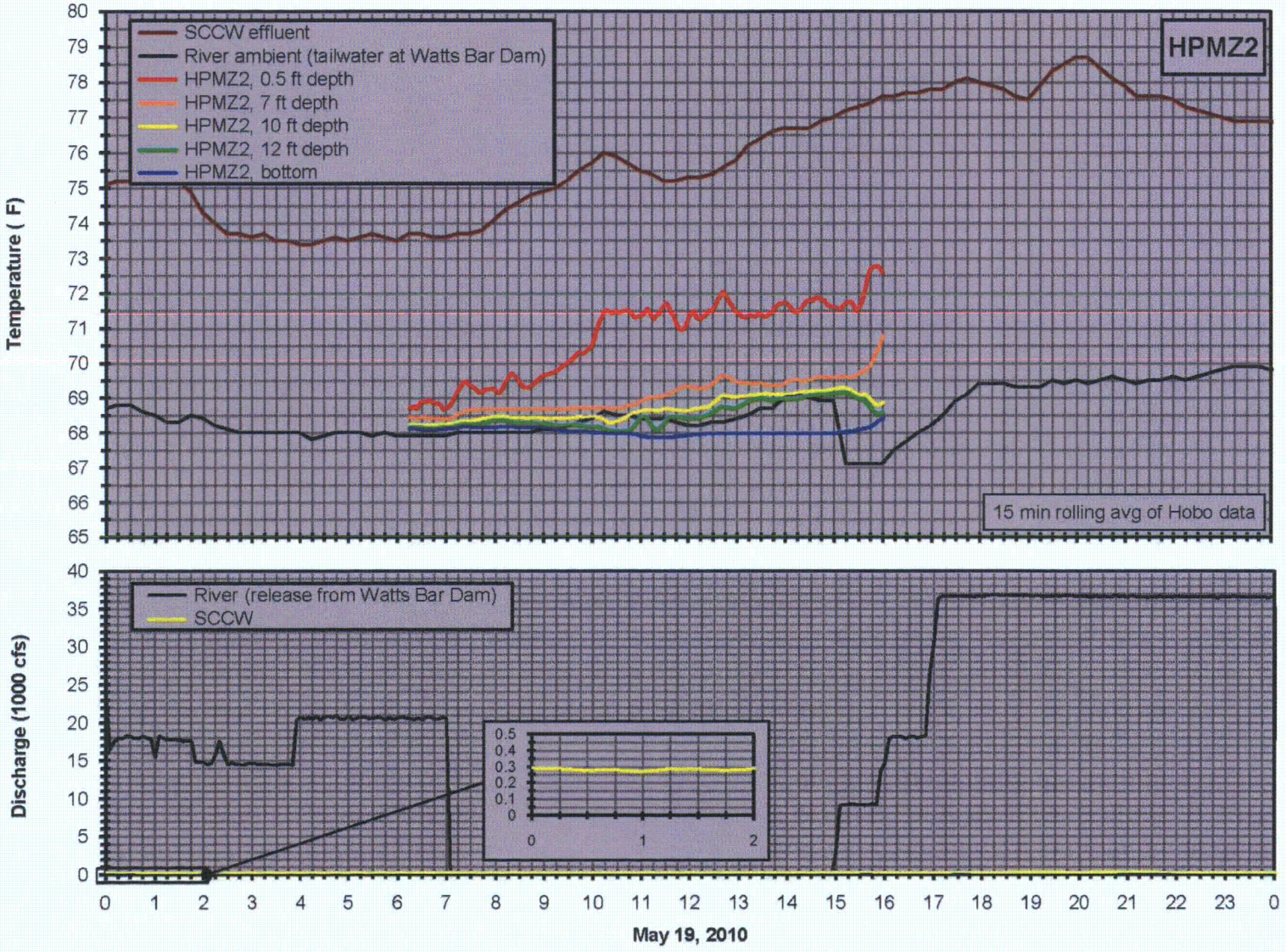


Figure 10-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ2** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

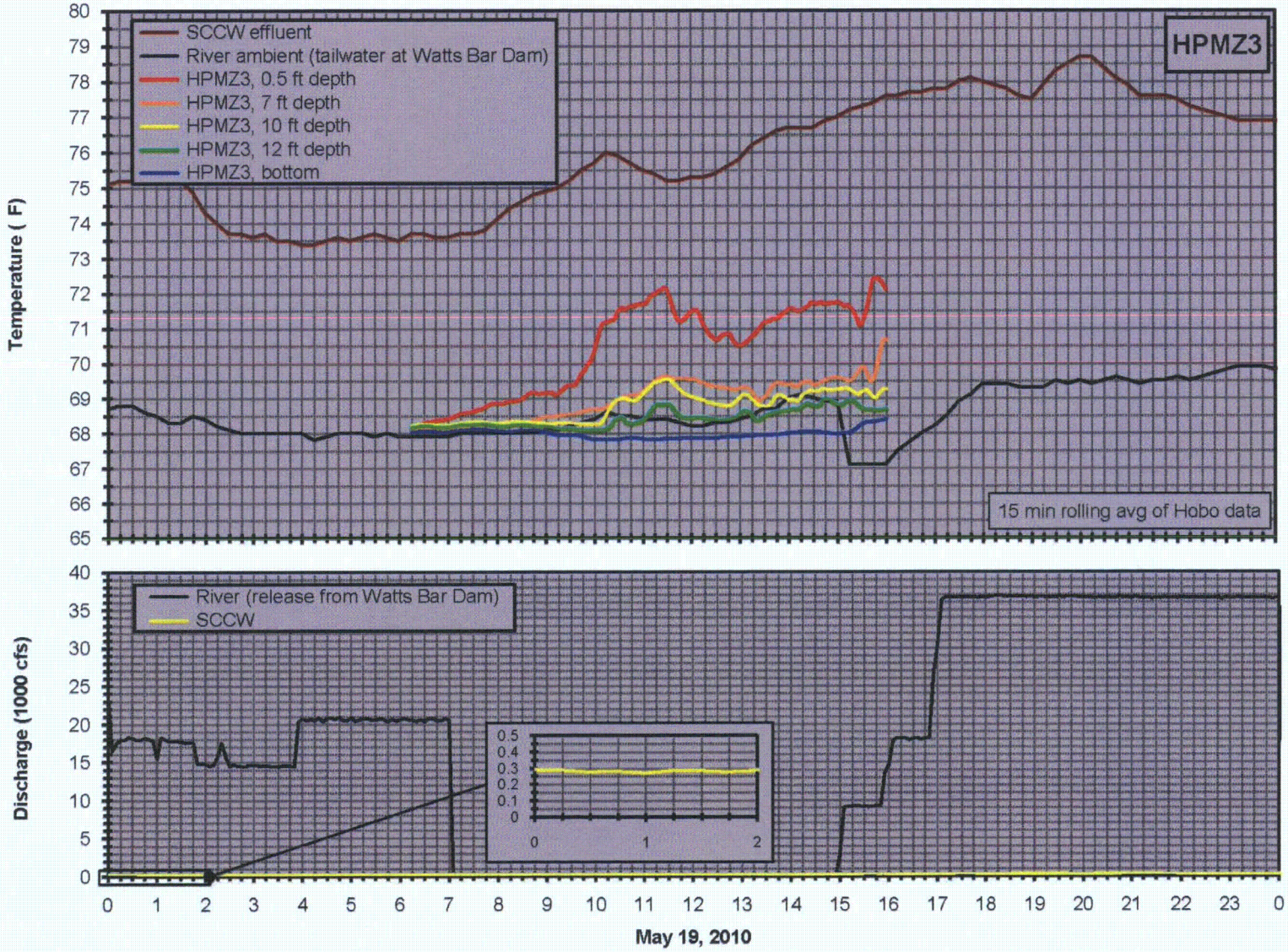


Figure 11-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ3** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

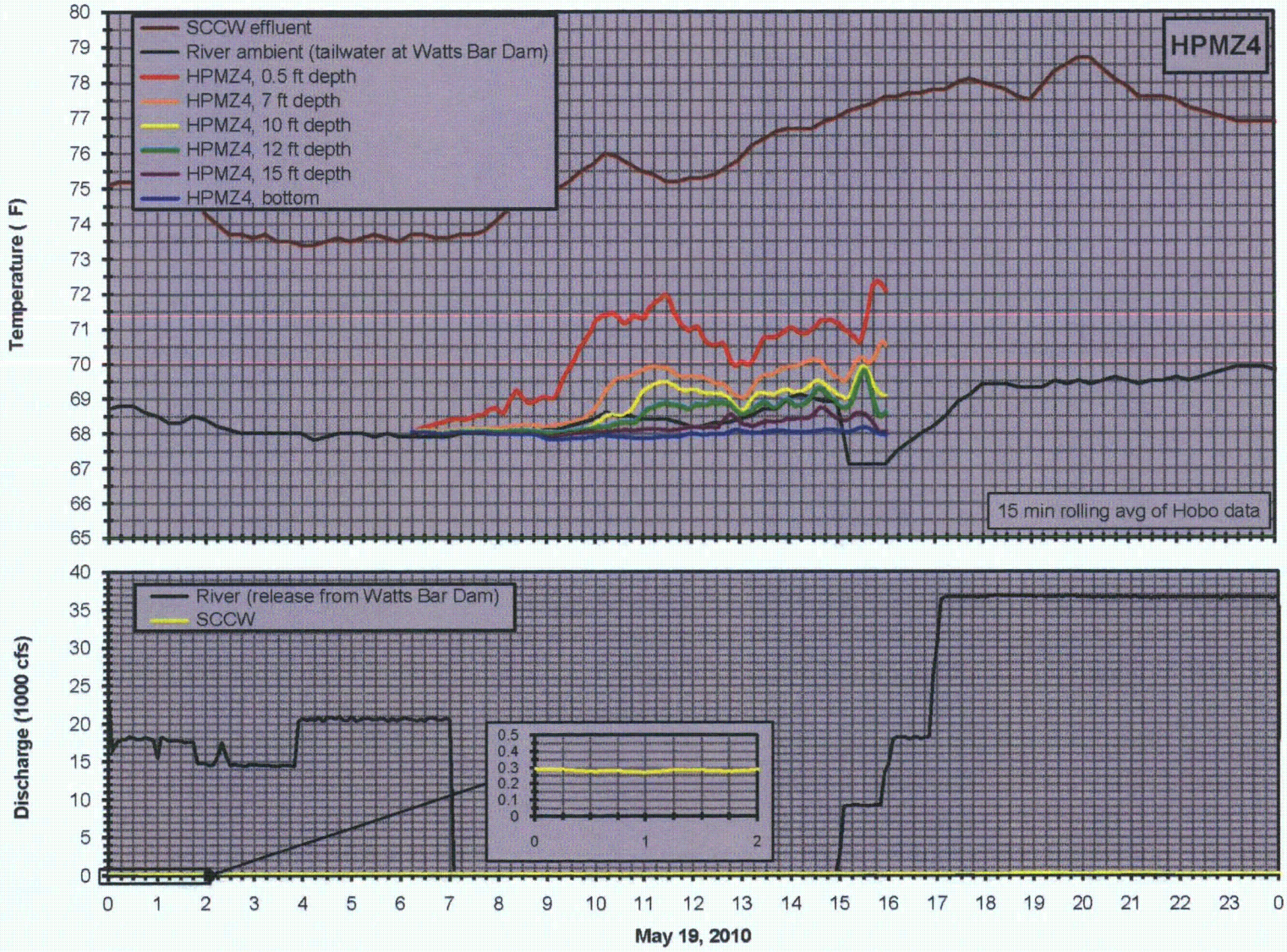


Figure 12-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ4** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

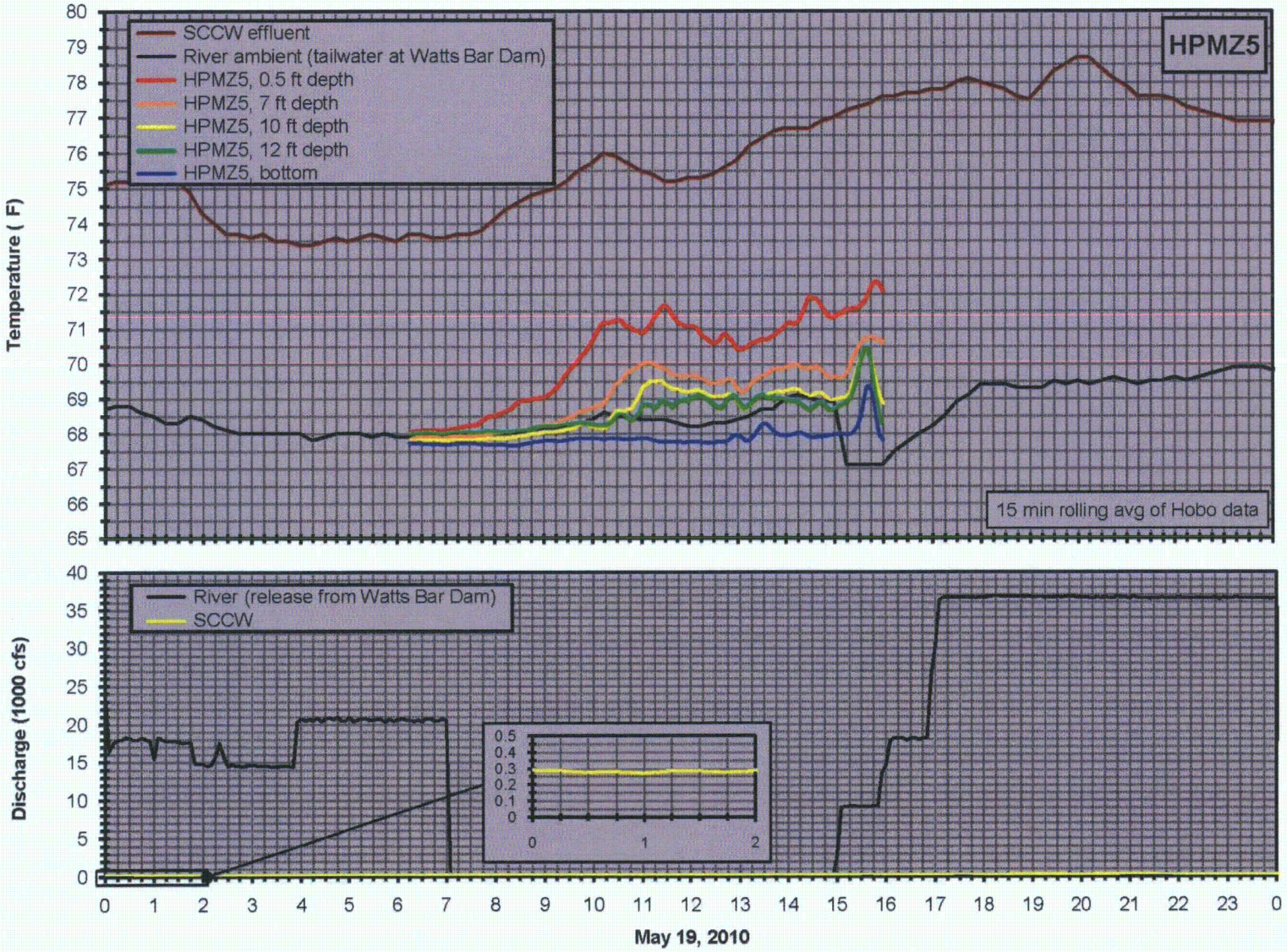


Figure 13-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ5** during the **daytime** test between 07:00 and 15:00 EST, May 19, 2010.

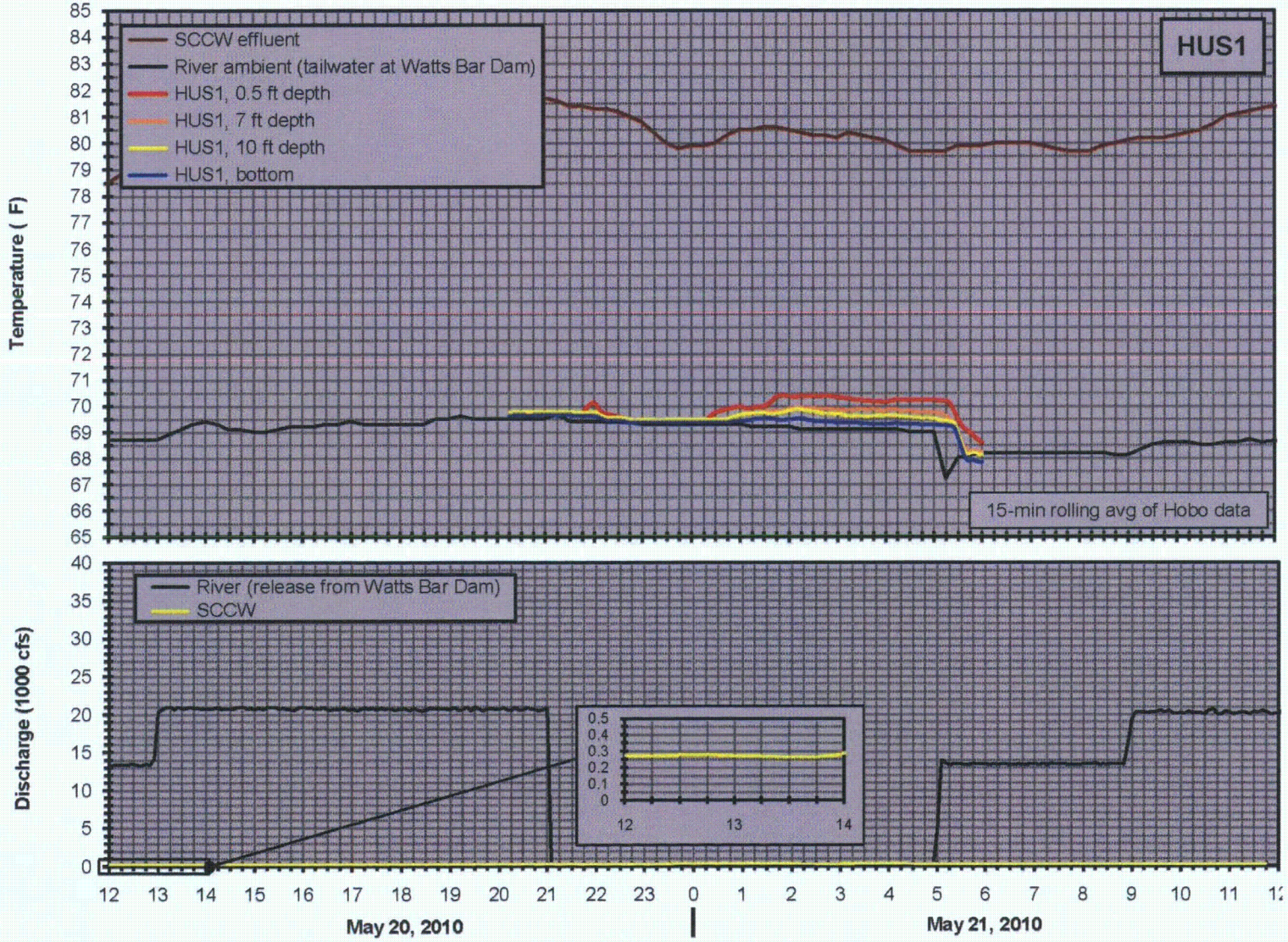


Figure 14-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US1** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

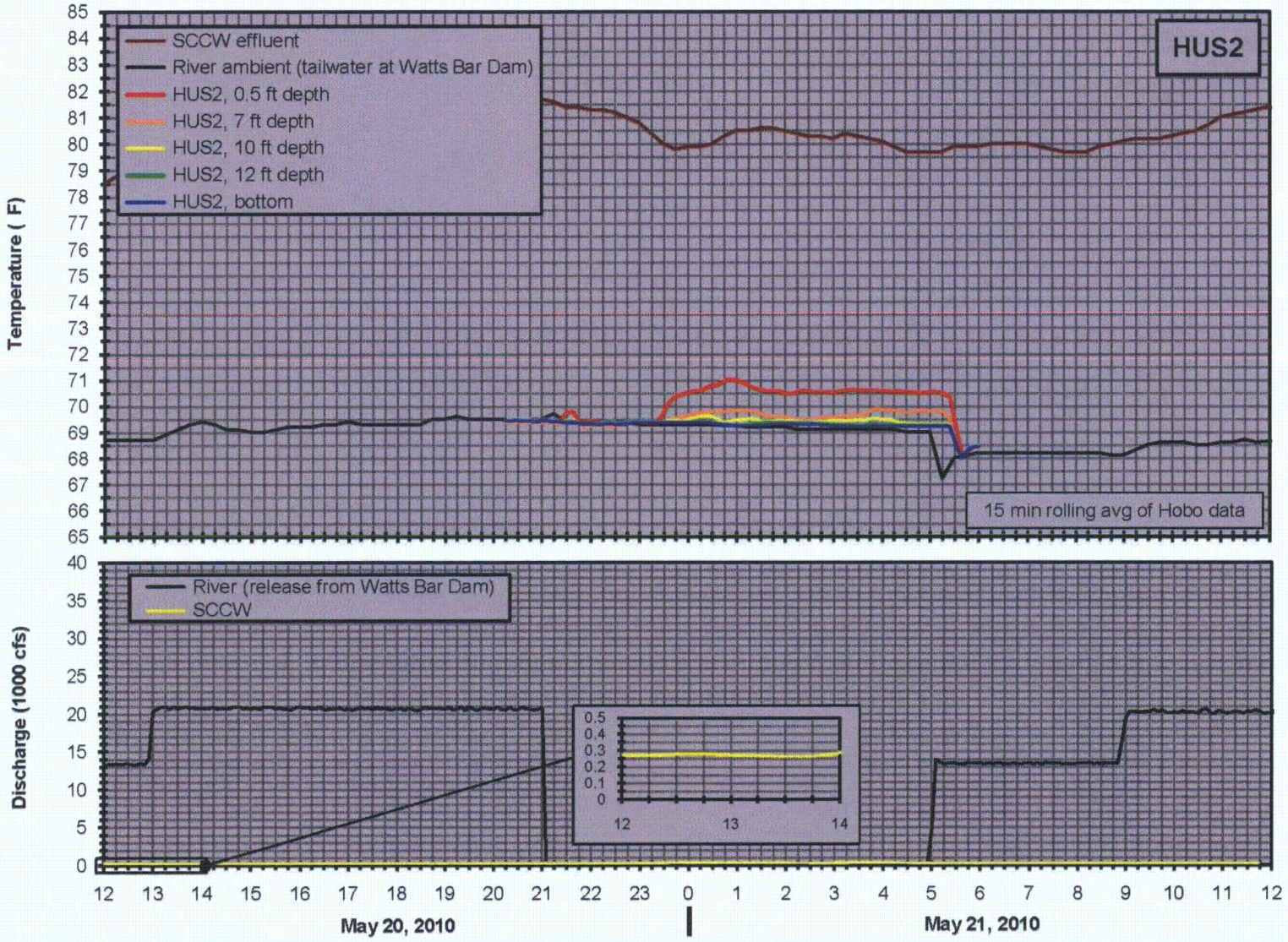


Figure 15-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US2** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

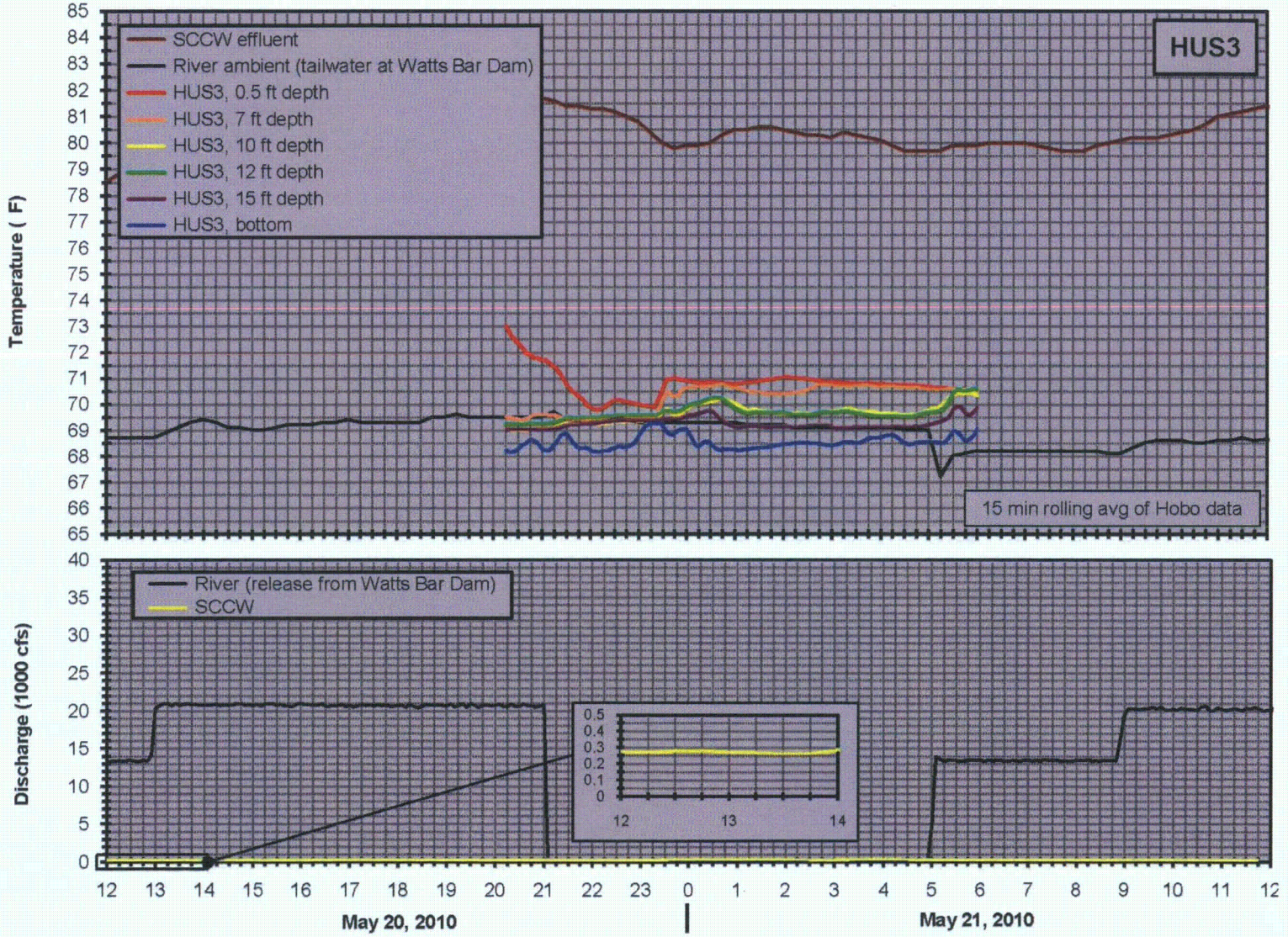


Figure 16-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-US3** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

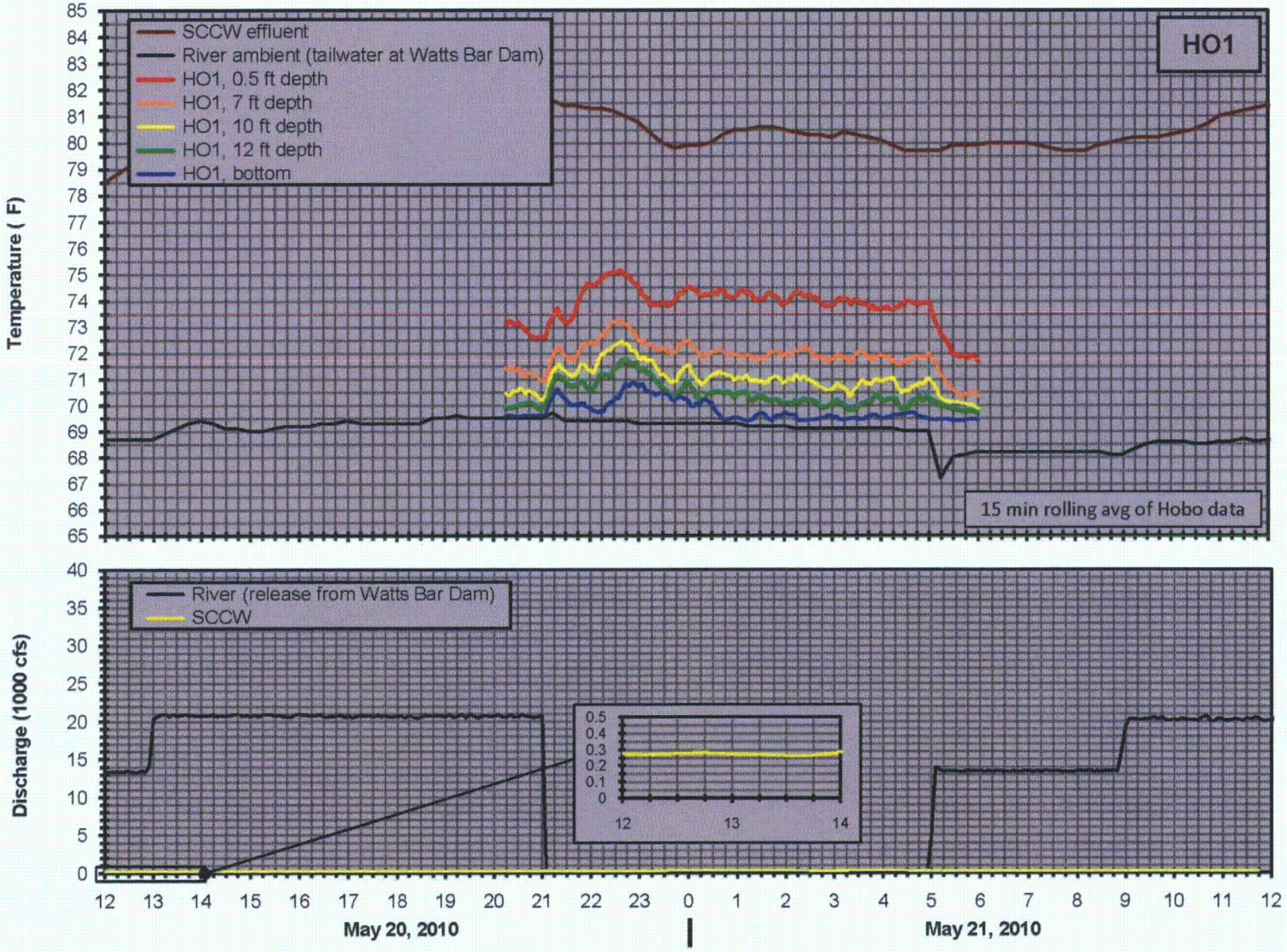


Figure 17-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O1** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

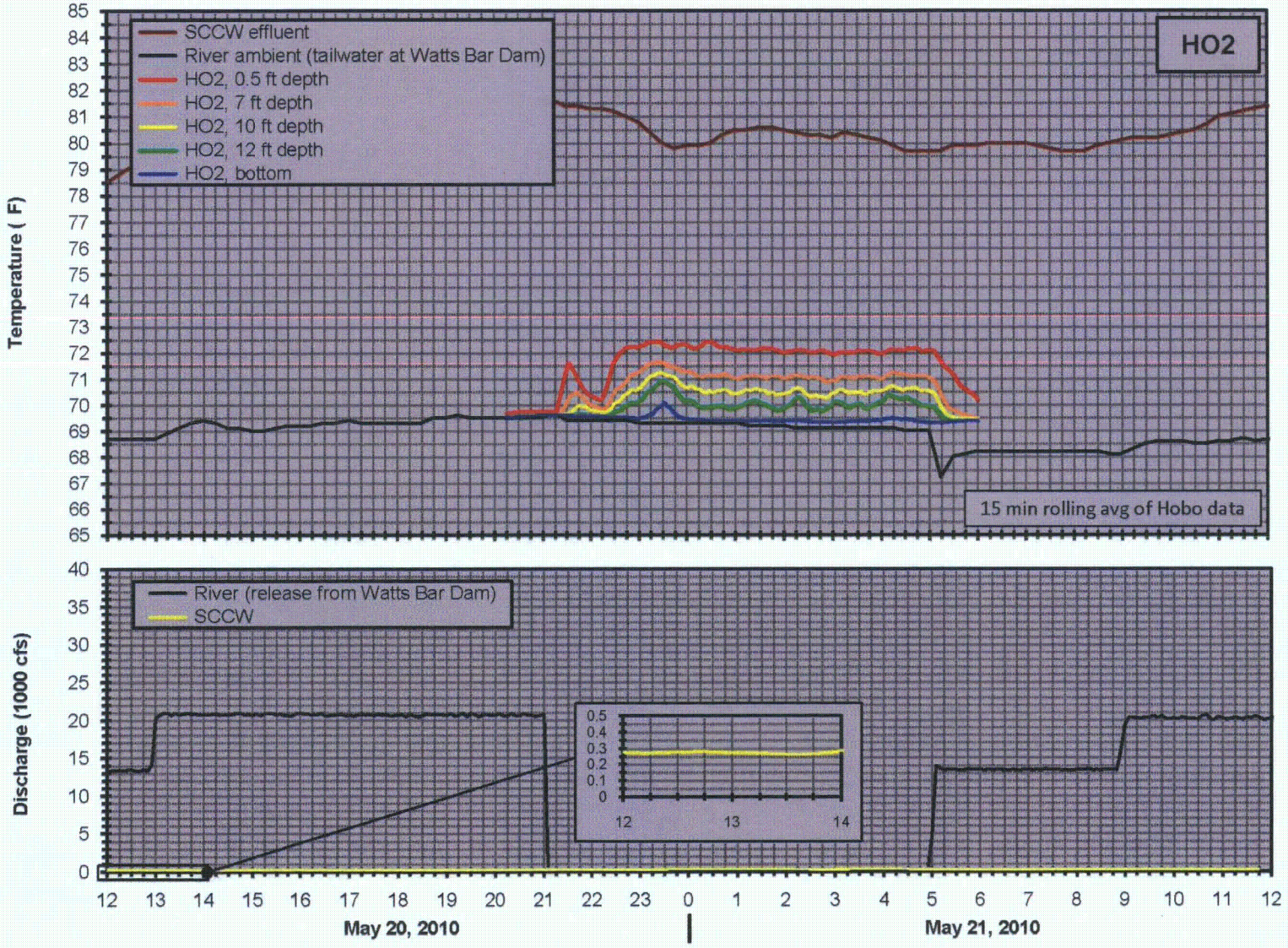


Figure 18-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O2** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

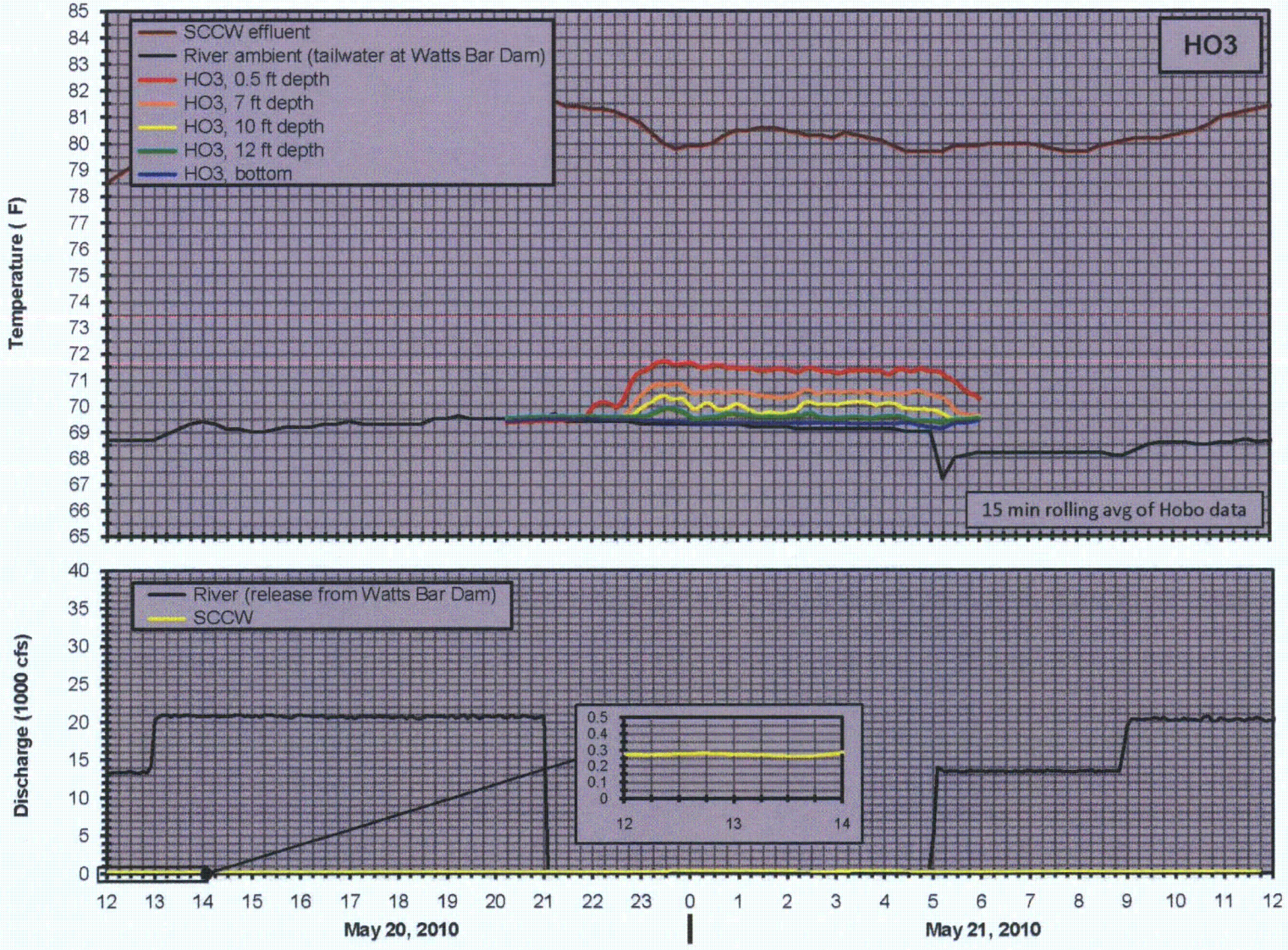


Figure 19-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O3** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

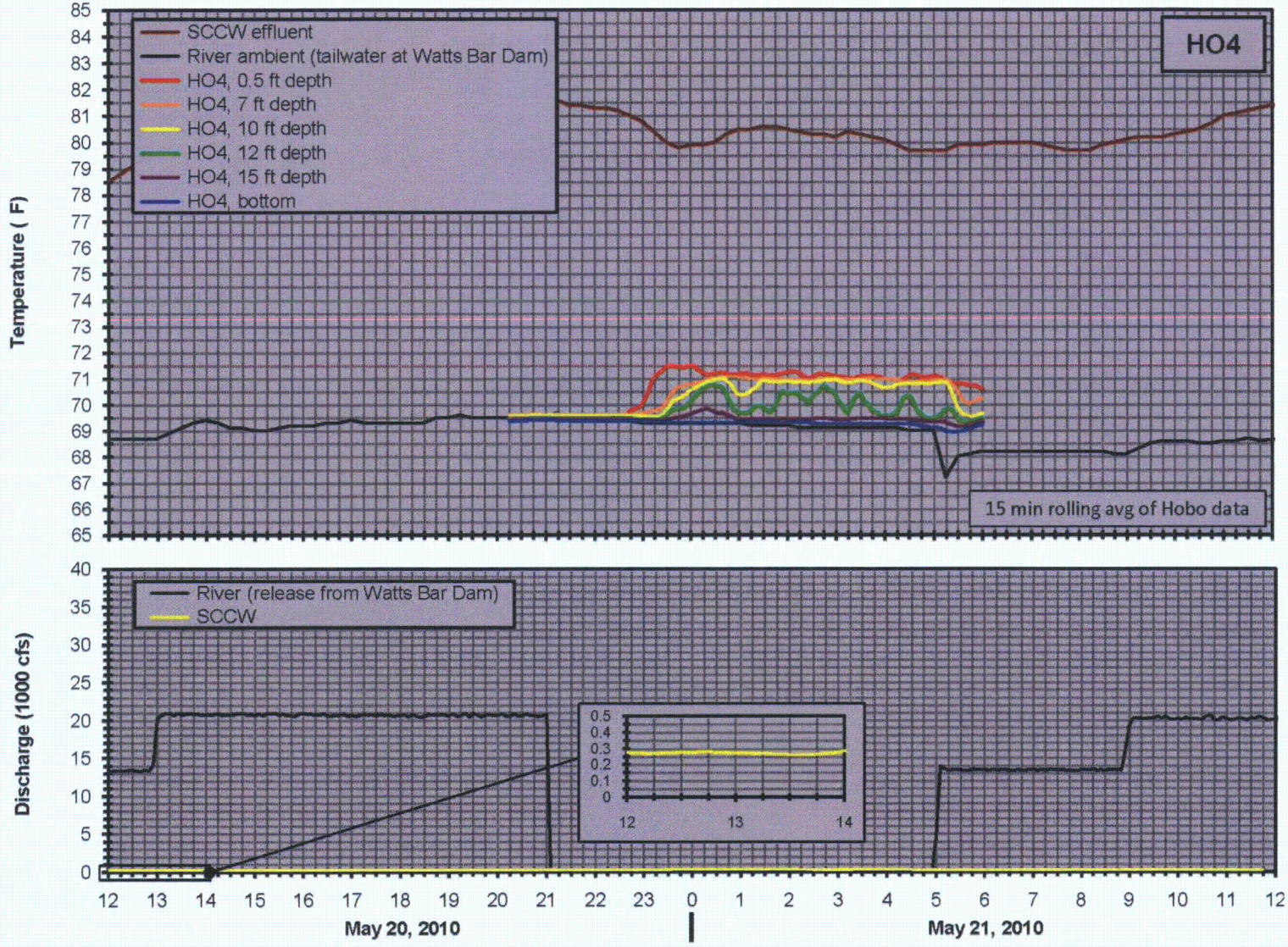


Figure 20-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O4** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

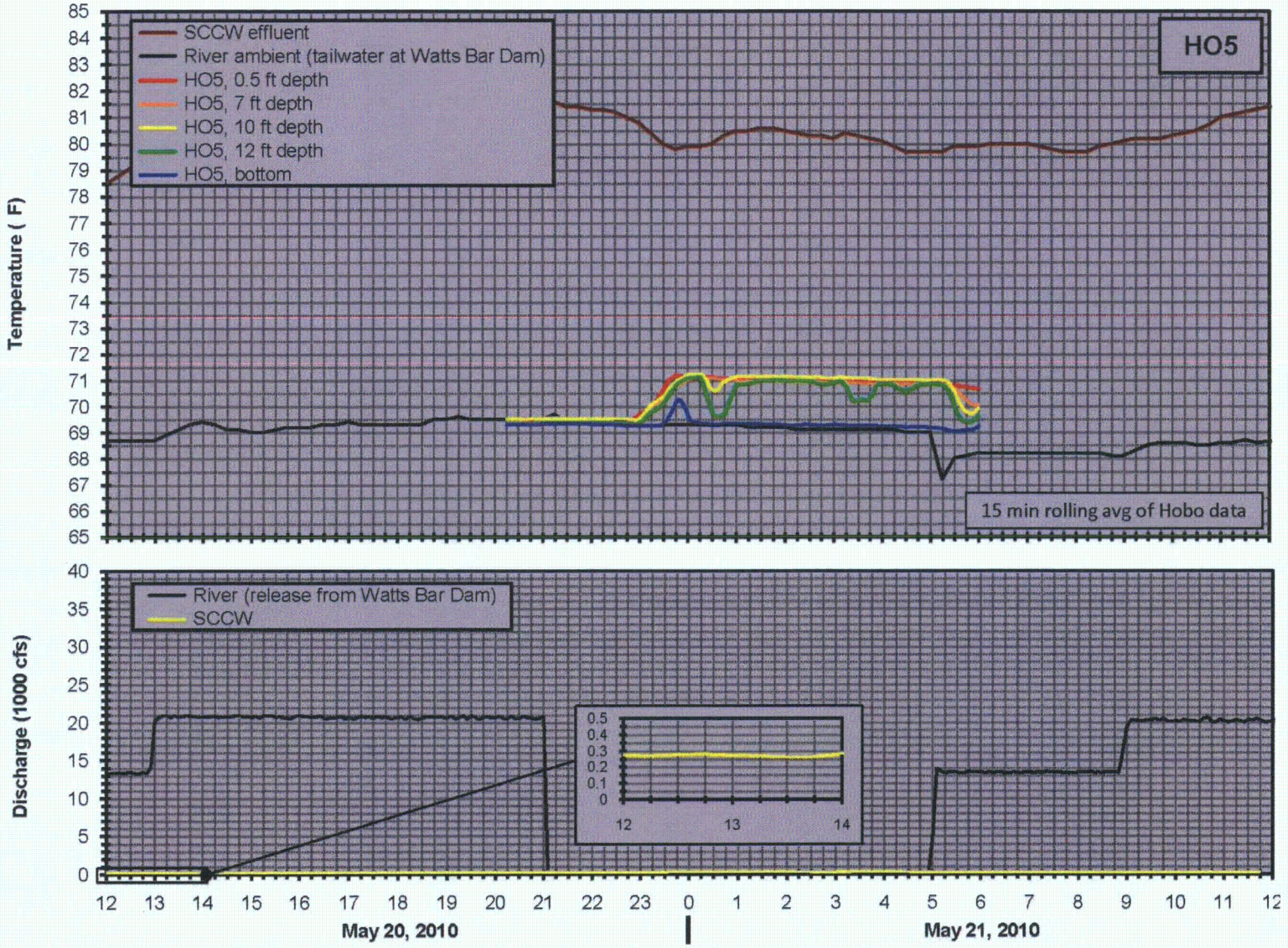


Figure 21-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-O5** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

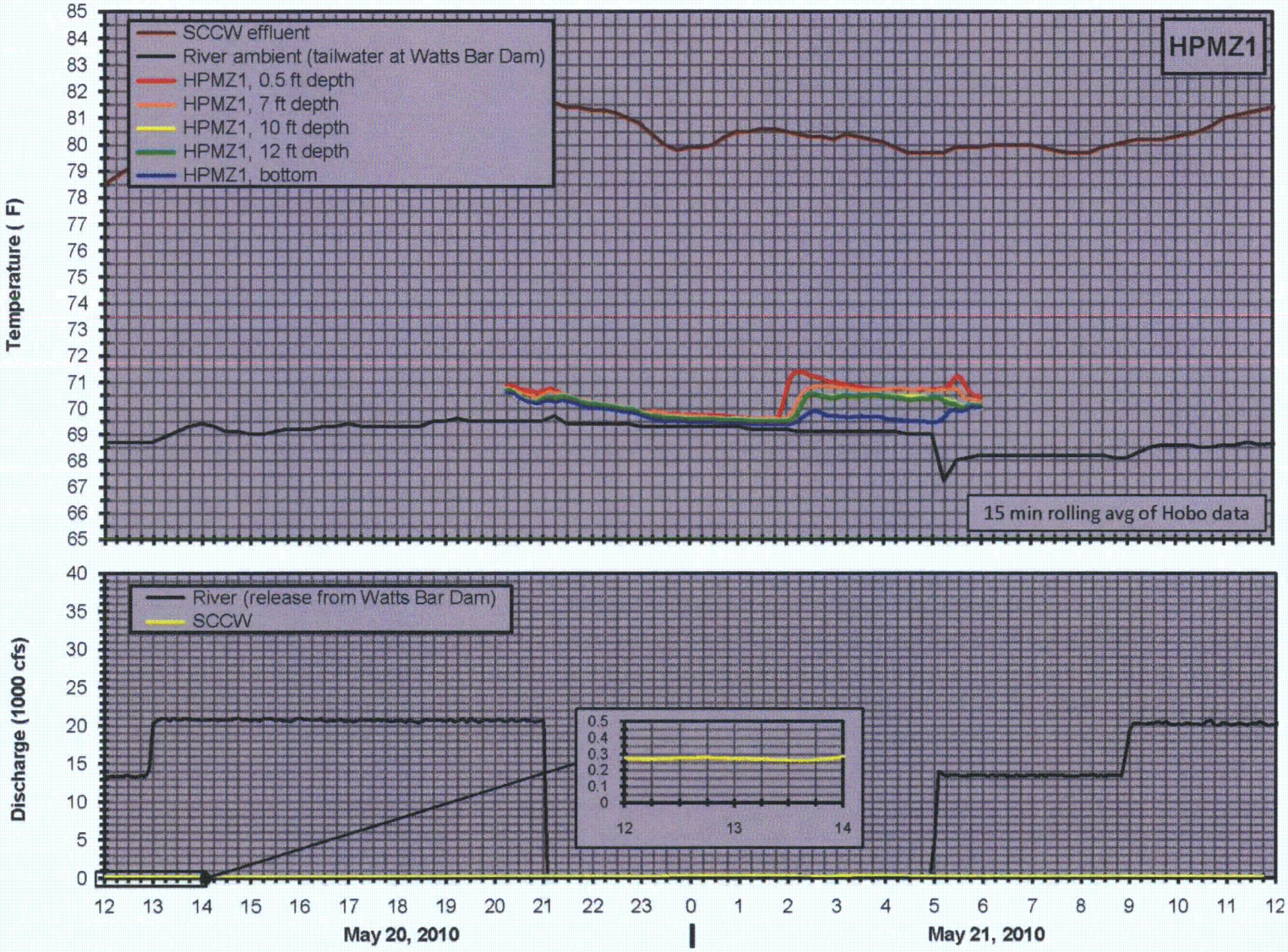


Figure 22-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ1** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.

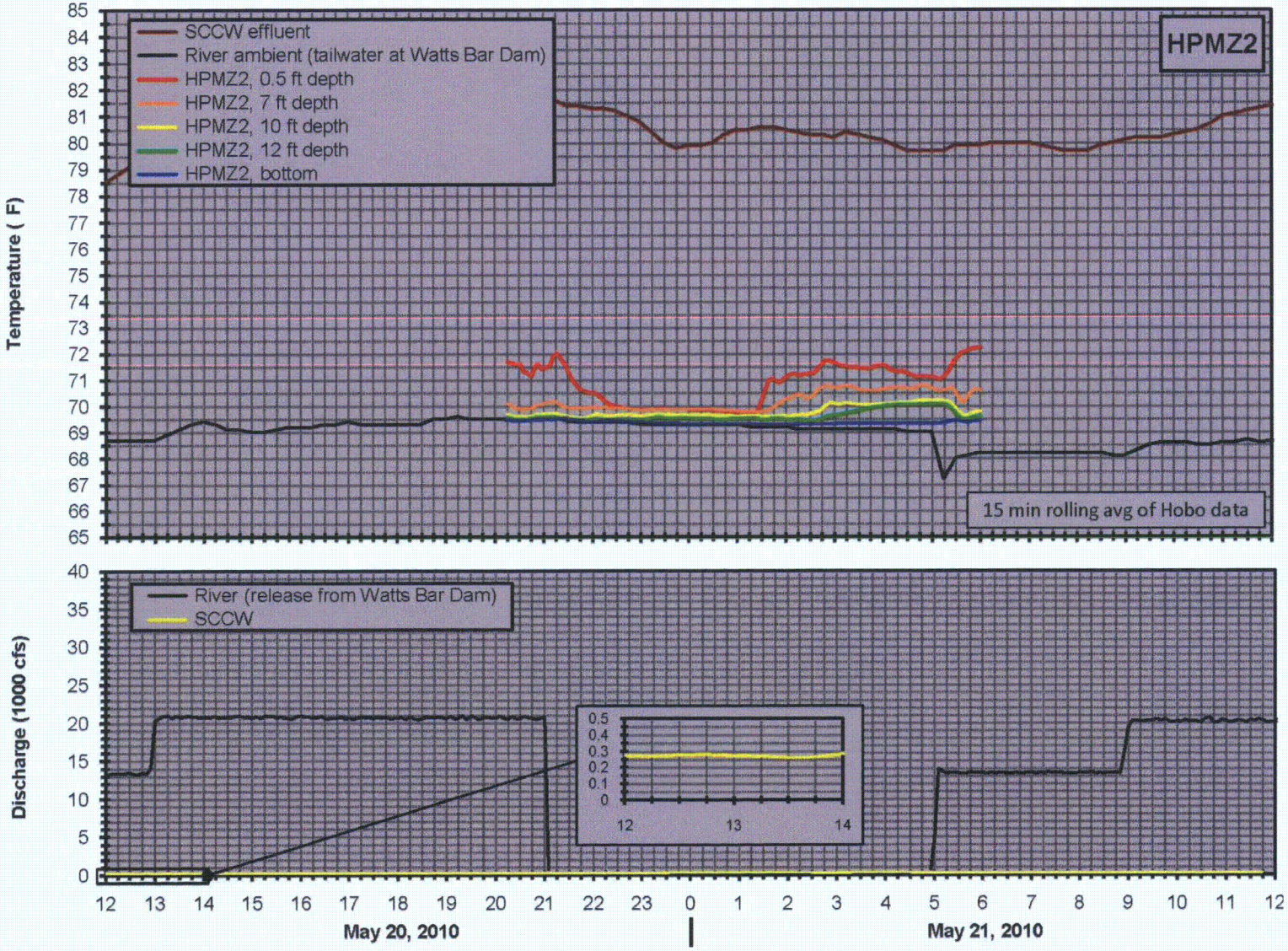


Figure 23-A. Discharge (x 1000 cubic feet per second) of water released from Watt Bar Hydroelectric Dam (WBH) and the Supplemental Condenser Cooling Water (SCCW) structure and water temperatures (°F) collected at 15-minute intervals at various depths from locations below Watts Bar Hydroelectric Dam, at the SCCW discharge, and at HOBO station **H-PMZ2** during the **nighttime** test between 21:00 and 05:00 EST, May 20-21, 2010.