APPENDIX F

Hydrology Data

This appendix provides hydrologic data on Compact Disk (CD) for Yuba County Water Agency's (YCWA or Licensee) Yuba River Development Project (Project). Data on the CD are organized into folders as summarized below.

DSS Data Files. This folder contains all available hydrologic data in the Gage Data folder and Unimpaired Flow Data folder in HEC-DSS format. A viewer for these files (HEC-DSSVue) can be obtained from the United States Army Corps of Engineers (USACE) at the following website as of March 2008: http://www.hec.usace.army.mil/software/hec-dss/hecdssvue-dssvue.htm

Exceedance Plots: This folder contains both Microsoft Excel and Adobe Acrobat files of flow exceedance plots of both historical regulated flows and unimpaired flows for locations throughout the Project Area. Historical regulated mean daily flows are presented both by month and for the full period of record for the following locations:

- North Yuba River at Goodyears Bar
- Accretions to New Bullards Bar Reservoir
- Slate Creek below the Slate Creek Diversion Dam
- Slate Creek Tunnel near Strawberry Valley
- Middle Yuba River above Our House Dam
- Lohman Ridge Tunnel at its Intake
- Middle Yuba River below Our House Dam
- Oregon Creek above Log Cabin Dam
- Camptonville Tunnel at its Intake
- Oregon Creek below Log Cabin Dam
- Colgate Powerhouse Tunnel
- New Bullards Bar Reservoir Spill
- New Bullards Bar Reservoir Fish Hydro
- North Yuba River below New Bullards Bar Dam
- South Yuba River at Jones Bar
- Accretions to Englebright Reservoir
- Narrows 1 Powerhouse
- Narrows 2 Powerhouse
- Deer Creek at Smartville[1]
- Dry Creek near Browns Valley
- Yuba River near Smartville

[1] In 2008, the people of this community petitioned to have the name changed to Smartsville, with an 's'. However, the USGS gage refers to the former spelling of the community name. Therefore in this document, the community is referred to as such.

- Yuba River near Marysville
- New Bullards Bar Reservoir Storage
- Englebright Reservoir Storage

Monthly average and mean daily unimpaired flows are presented in exceedance plots for the following locations:

- Deer Creek at Confluence with Yuba River
- Combined Deer Creek and Yuba River at Smartville
- Middle Yuba River at the Confluence with the North Yuba River
- South Yuba River at Confluence with the Yuba River
- North Yuba River at the Confluence with the Middle Yuba River
- Yuba River at Smartville

Haze Charts: This folder contains a Microsoft Excel and Adobe Acrobat file of figures showing daily flows for each water year overlain on top of one another to demonstrate historical trends and variability throughout the water year. Haze charts are presented for the following locations:

- North Yuba River below Goodyears Bar
- Slate Creek below Slate Creek Diversion Dam
- Slate Creek Tunnel near Strawberry Valley
- Middle Yuba River above Our House Dam
- Lohman Ridge Tunnel near Intake
- Middle Yuba River below Our House Dam
- Oregon Creek above Log Cabin Dam
- Camptonville Tunnel at Intake
- Oregon Creek below Log Cabin Dam
- Colgate Powerplant
- North Yuba River below New Bullards Bar Dam
- South Yuba River at Jones Bar
- Narrows 1 Powerplant
- Narrows 2 Powerplant
- Deer Creek at Smartville
- Dry Creek near Browns Valley
- Yuba River near Smartville
- Yuba River near Marysville
- New Bullards Bar Reservoir Storage
- Englebright Storage

Historical Context Plots: This folder contains a Microsoft Excel file and Adobe Acrobat file with exceedance plots comparing mean daily flows at Smartville and Marysville for three temporal phases: prior to the construction of Englebright Dam, prior to the construction of the Yuba River Development Project, and during Project operations. The plots show how flows

have changed through each phase of construction. The exceedance plots are presented by month, and for the full period of record.

Hydrology Development: This folder contains the supporting Microsoft Excel files used to develop the inflow hydrology for use with the Yuba River Development Project (YRDP) operations model for the simulation period of record (WY1970-2008) and for use in determining unimpaired flows within the Project Area.

Monthly Summaries: This folder contains a Microsoft Excel file and Adobe Acrobat file of bar charts showing average monthly flows and the range of average monthly flows throughout the period of record for a number of locations throughout the watershed. The monthly average flows are presented for the following locations:

- North Yuba River below Goodyears Bar
- Slate Creek below Slate Creek Diversion Dam
- Slate Creek Tunnel near Strawberry Valley
- Middle Yuba River above Our House Dam
- Lohman Ridge Tunnel near Intake
- Middle Yuba River below Our House Dam
- Oregon Creek above Log Cabin Dam
- Camptonville Tunnel at Intake
- Oregon Creek below Log Cabin Dam
- Colgate Powerplant
- North Yuba River below New Bullards Bar Dam
- South Yuba River at Jones Bar
- Narrows 1 Powerplant
- Narrows 2 Powerplant
- Deer Creek at Smartville
- Dry Creek near Browns Valley
- Yuba River near Smartville
- Yuba River near Marysville
- New Bullards Bar Reservoir Storage
- Englebright Storage

Power Generation: This folder contains a Microsoft Excel file with a timeseries of historical daily power generation at the New Colgate Powerhouse and the Narrows 2 Powerhouse for 12/1/1994 through 3/3/2009.

Stage-Storage Curves: This folder contains a two spreadsheets: one relating reservoir water surface elevation to reservoir storage and surface area for New Bullards Bar Reservoir; and a spreadsheet relating reservoir water surface elevation to reservoir storage and spill rate for Englebright Reservoir.

Water Year Types: This folder contains information about the computation of water year types under both the Yuba River Accord and the California State Water Resources Control Board Revised Decision 1644.