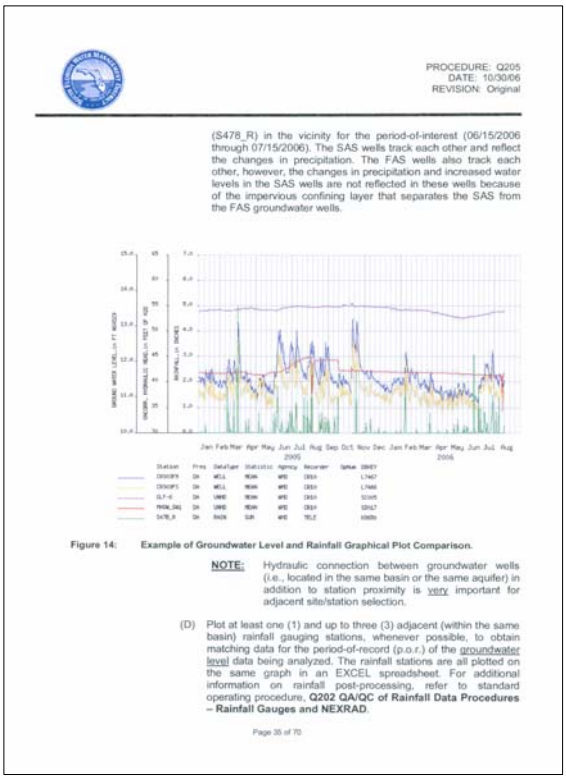
QA/QC of Groundwater Level Data Procedures: Procedure Q205
BSS provided technical writing and editing support to the SFWMD SCADA & Hydro Data Management Department. This document describes the Standard Operating Procedure (SOP) for performing QA/QC analyses of groundwater data. Information for the SOP was obtained by conducting interviews with District personnel and literature reviews of relevant USGS and SFWMD internal documents. During SOP development, BSS used DBHYDRO to identify common groundwater data outliers found during the QA/QC process. DBHYDRO images were incorporated into the SOP as examples. Information was also obtained from the USGS Florida Ground-Water website, as well as, from the District's SIM Maintenance Database and site registration worksheets. The responses of Surficial and Floridan groundwater wells to rainfall, water quality sampling events, sensor-related problems, and well field pumping were documented.



PROCEDURE: Q205
DATE: 10/30/06
REVISION: Original

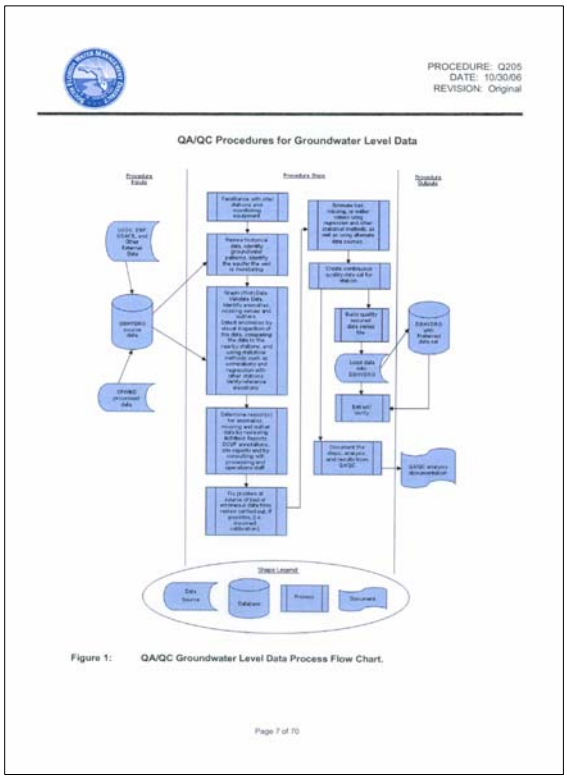
(S478_R) in the vicinity for the period-of-interest (06/15/2006 through 07/15/2006). The SAS wells track each other and reflect the changes in precipitation. The FAS wells also track each other, however, the changes in precipitation and increased water levels in the SAS wells are not reflected in these wells because of the impervious confining layer that separates the SAS from the FAS groundwater wells.

Figure 14: Example of Groundwater Level and Rainfall Graphical Plot Comparison.

NOTE: Hydraulic connection between groundwater wells (i.e., located in the same basin or the same aquifer) in addition to station proximity is very important for adjacent site/station selection.

(D) Plot at least one (1) and up to three (3) adjacent (within the same basin) rainfall gauging stations, whenever possible, to obtain matching data for the period-of-record (p.o.r.) of the groundwater level data being analyzed. The rainfall stations are all plotted on the same graph in an EXCEL spreadsheet. For additional information on rainfall post-processing, refer to standard operating procedure, **Q202 QA/QC of Rainfall Data Procedures – Rainfall Gauges and NEXRAD**.

Page 35 of 70



PROCEDURE: Q205
DATE: 10/30/06
REVISION: Original

QA/QC Procedures for Groundwater Level Data

Figure 1: QA/QC Groundwater Level Data Process Flow Chart.

Page 7 of 70