

BPA TO HYSSR FLOW CONVERSION PROGRAM

PROGRAM: CONVFLOW.EXE

INTRODUCTION. The BPA to HYSSR Flow Conversion program is used to convert adjusted natural flows from BPA's format to standard HYSSR format. The natural flows are called adjusted natural flows because BPA has adjusted the natural flows to the appropriate depletion level for the year of study. These adjusted flows also include irrigation pumping at Grand Coulee and return flows downstream. The program is designed for flow years containing fourteen periods.

INPUT. The BPA to HYSSR Flow Conversion program executes interactively, so the program prompts the user to enter the necessary information. The program requires two input files: the adjusted natural flow file in BPA's format and a project number cross-reference file.

The adjusted natural flows file from BPA contains the adjusted natural flows in CFS. These flows are converted from BPA's format to HYSSR format. No data conversion is done to the flows themselves because the HYSSR flows are also in CFS. BPA's format follows and a sample of BPA's flow data is found on page 4.

INPUT DATA FORMAT:

The project record contains the BPA project number in columns 61 through 64. The flow records for that project follow the project record and contain the year as 1928-29, for the first water year, in columns 2 through 8. The flows for that year follow on that record beginning in column 13. There are 14 data fields (one for each period), each 8 characters wide with the first data field containing the flow for the first half of August (AG1) and the last data field containing July's (JUL) flow.

The project number cross-reference file contains BPA's project number and its corresponding HYSSR external project number and project name. The format for this file is:

CROSS-REFERENCE FILE FORMAT:

COLS 1-4 BPA Project number
COLS 10-12 HYSSR Project number
COLS 19-40 Project name

CROSS-REFERENCE FILE SAMPLE DATA:

2208	157	CUSHMAN NO.1
2206	158	CUSHMAN NO.2
1890	1	MICA
1760	3	LIBBY
1530	10	HUNGRY HORSE
1280	19	GRAND COULEE
535	31	DWORSHAK

OUTPUT. The program will prompt the user to enter the file name where the reformatted natural flows should be written. These flows will be in standard HYSSR format with "80" as the study year in columns 17 - 18. The format for these flow data and a sample of the output is found below.

HYSSR FORMAT:

COLS 1-2 HYSSR record code (**60** for flow records)
COLS 8-10 HYSSR Project number
COLS 17-18 Study year (**80** so HYSSR will not deplete the flows
again)
COLS 19-20 Flow year of data (not water year)
COLS 21-23 Period identifier
COLS 24-32 Data
COLS 33-35 Period identifier
COLS 36-44 Data
COLS 45-47 Period identifier
COLS 48-56 Data
COLS 57-59 Period identifier
COLS 60-68 Data
COLS 69-71 Period identifier
COLS 72-80 Data

HYSSR SAMPLE OUTPUT:

60	157	8028AG1	40.0AUG	142.0SEP	113.0OCT	420.0NOV	929.0
60	157	8028DEC	763.0				
60	157	8029JAN	381.0FEB	202.0MAR	579.0AP1	768.0APR	522.0
60	157	8029MAY	794.0JUN	835.0JUL	355.0		
60	157	8029AG1	31.0AUG	301.0SEP	130.0OCT	137.0NOV	112.0
60	157	8029DEC	756.0				
60	157	8030JAN	309.0FEB	1270.0MAR	587.0AP1	986.0APR	954.0
60	157	8030MAY	483.0JUN	332.0JUL	165.0		

EXECUTION ON THE PC. To execute the BPA to HYSSR Flow Conversion program, have a copy of **CONVFLOW.EXE** in the local **C:\HYSSR\PGM** subdirectory. Now type **CONVFLOW** while in the **C:\HYSSR\PGM** subdirectory and the program will begin execution.