VIII.3.3-BASEFLOW   BASEFLOW SIMULATION OPERATION

Identifier: BASEFLOW

Operation Number: 38

Parameter Array: The FORTRAN identifier used for the parameter array
is PO. The contents of the PO array are:

Position	Contents
1	Operation version number

2	Indicator of units specified for parametric input (integer value):
	   0 = English
	   1 = Metric

3-4	Baseflow time series identifier - time series attributes are:
	   o dimension of L3/T
	   o units of CMS
	   o no missing values allowed
	   o output time series
	   o values are replaced
	   o any allowable data time interval

5	Baseflow time series type
6	Baseflow time series time interval (units of HR)
7	Area associated with this Operation (units of KM2) (used with MODs specifying baseflow as flow per unit area)
8	Constant baseflow option indicator (units of CMS)

9	Variable baseflow option indicator (integer value):
	   0 = no variable baseflow
	   1 = single baseflow recession coefficient
	   2 = recession coefficient supplied as a time series

10	Number of PO array spaces needed for variable baseflow parameters (integer value) (zero if PO(9) is zero)
11	Total number of PO array values (integer value)
12	Total number of carryover values (integer value)
13-17	Unused

```
Position        Contents

    18          Starting location for variable baseflow parameters if
                any are specified:
                    If PO(9)=0, no extra parameters needed
                    If PO(9)=1, one extra parameter required:
                        o  baseflow recession coefficient (allowable
                           range is greater than or equal to 0.5 and
                           less than 1.0)
                    If PO(9)=2, three extra values are required:
                        o  recession coefficient time series identifier
                           (2 values) - time series attributes are:
                        o  dimensions of DLES
                        o  units of PCTD
                        o  missing values allowed
                        o  update time series
                        o  values are replaced
                        o  24-hour data time interval
                        o  recession coefficient time series data type
```

Carryover Array: The FORTRAN identifier used for the carryover array
is CO. The contents of the CO array depend on the variable baseflow
option selected:

    If PO(9)=0, there is no carryover

    If PO(9)=1, there is one carryover value:
        o previous total baseflow (units of CMS)

    If PO(9)=2, there are two carryover values:
        o previous total baseflow (units of CMS)
        o previous recession coefficient (range greater than or equal
           to 0.5 and less than 1.0)

Initial carryover values must be input by the user.

Subroutines Names and Functions: Subroutines associated with this
Operation are:

    Subroutine   Function

    PIN38   Input information and stores values in the PO and CO
                  arrays

    PRP38   Print information stored in the PO array

    PRC38   Print information stored in the CO array

    EX38   Execute the BASEFLOW Operation

    COX38   Perform carryover transfer

    PUC38   Generate card images from the PO and CO arrays which
                  can be read by the PIN38 subroutine

Subroutine   Function

TAB38   Make entries into the Operation table

Subroutines PIN38, PRP38, COX38 and PUC38 have the standard Argument lists for these routines as described in Section VIII.4.3.

```
SUBROUTINE EX38 (PO,CO,BFR,BF)
```

Function: This is the execution routine for Operation BASEFLOW.

Argument List:

Variable	Input/ Output	Type	Dimension	Description
PO	Input	R*4	Variable	Contains parameters and other information
CO	Both	R*4	Variable	Contains carryover data
BFR	Both	R*4	Variable	Baseflow recession coefficient time series data
BF	Output	R*4	Variable	Baseflow discharges (units of CMS)

```
SUBROUTINE TAB38 (TO,LEFT,IUSET,NXT,LPO,PO,LCO,TS,MTS,LWORK,IDT)
```

Functions: This is the Operations table entry routine for Operation
BASEFLOW.

Argument List: A description of the arguments is contained in
Section VIII.4.2-TAB.

Operation Table Array: The contents of the TO array are:

   Position   Contents

       1   Operation number

       2   Location of the next Operation in the T array

       3   Location of the PO array within the P array

       4   Location of the CO array within the C array:
                   0 = carryover not needed

       5   Location to put baseflow values in the D array

       6   Location of baseflow recession coefficient values in
                the D array:
                   0 = not used