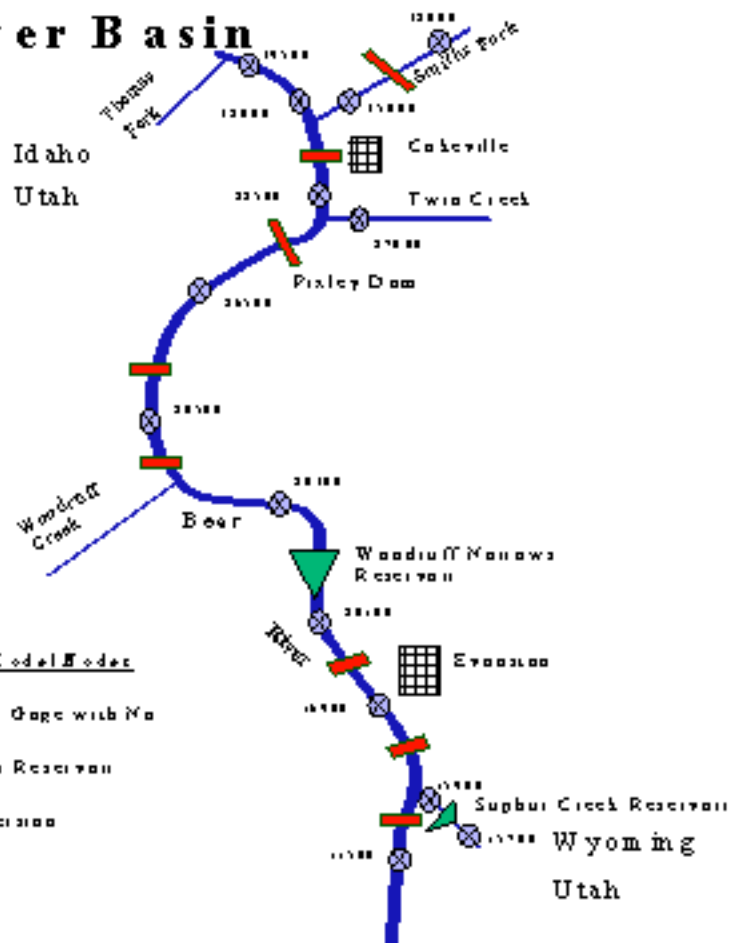
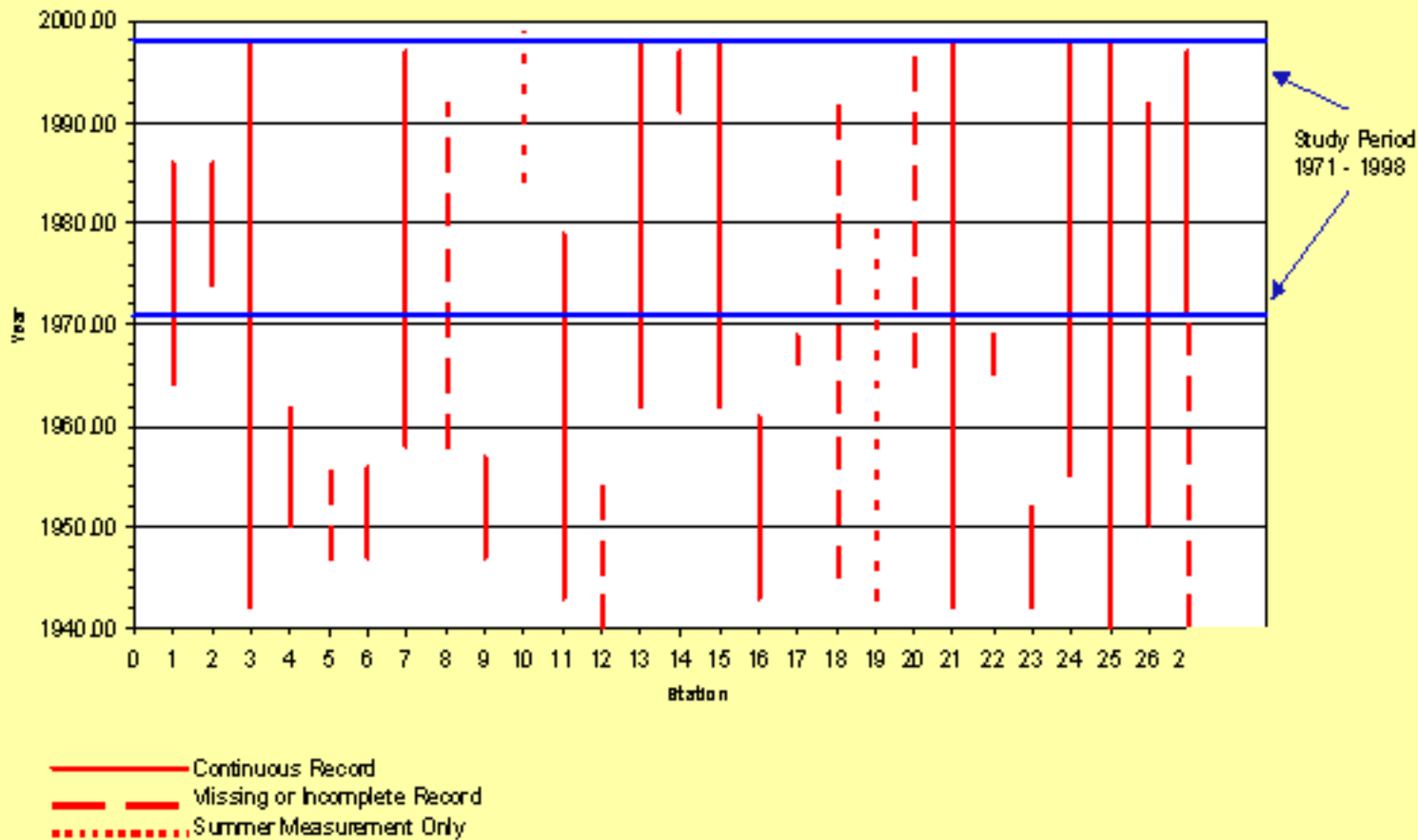


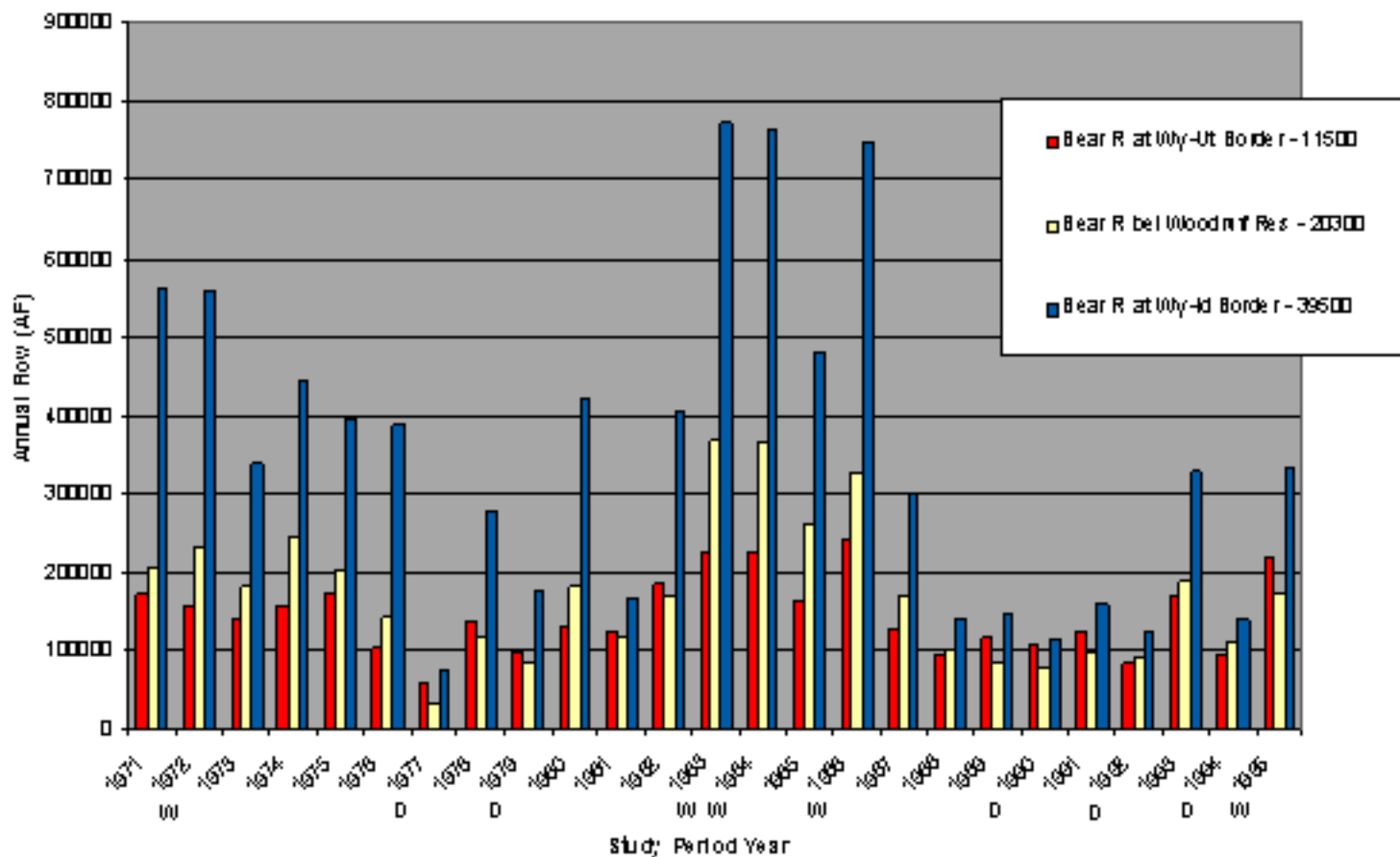
Bear River Basin



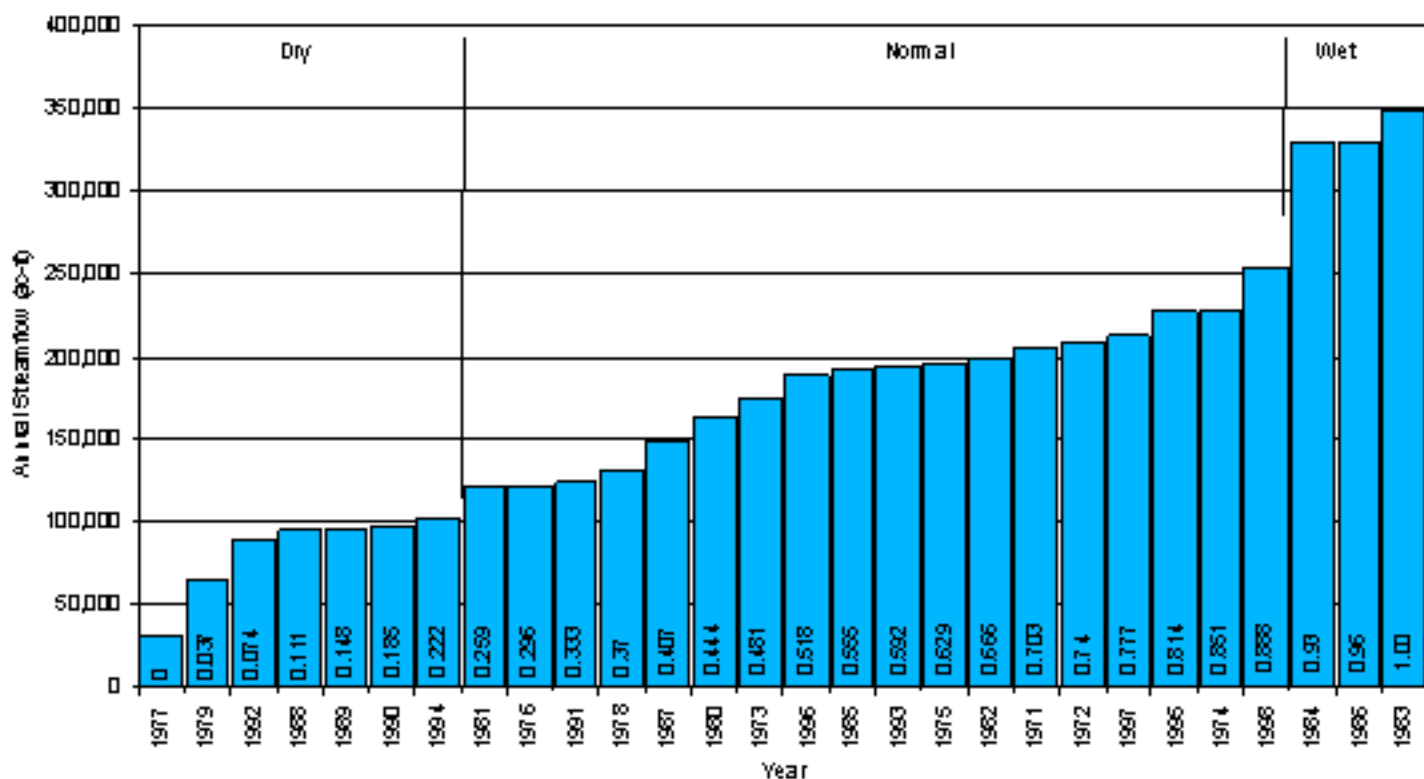
Summary of Available Streamflow Data at Bear River Basin Planning Study



Annual Flows at Selected Gages



Ranked Annual Streamflow Gage 10016900 Bear River at Evanston, Wyoming



Ranked Annual Streamflow Gage 1002850 Bear River below Pixley Dam

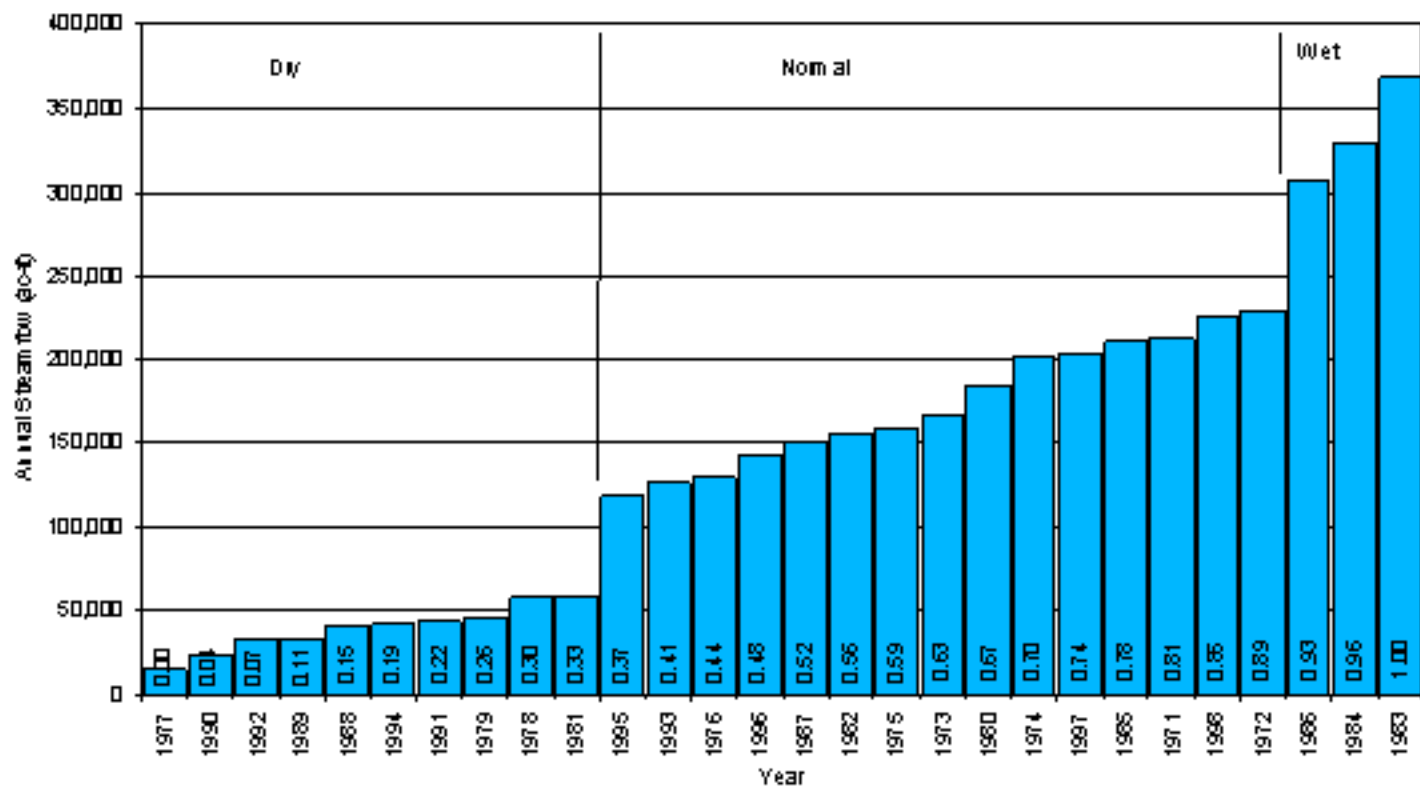


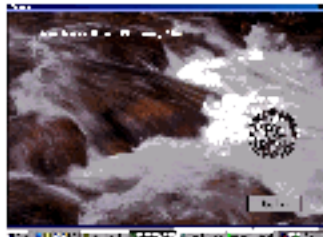
Table 5. Characterization of Wet, Normal, and Dry Years for Bear River Model Index Gages

Station	Gage Name	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
*0011500	Bear River near Utah-Wyoming State Line	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Dry	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Wet	Normal	Normal	Normal	Normal
*0015700	Sulphur Creek at LaChapelle City, Evans, WY	Normal	Normal	Normal	Wet	Normal	Normal	Dry	Normal	Dry	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal
*0013900	Bear River at Evanston, Wyoming	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Dry	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal
*0020100	Bear River above Reservoir, nr Woodruff, UT	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Dry	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal
*0023000	Bear River below Reservoir, nr Woodruff, UT	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Dry	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal
*0023500	Bear River near Randolph, UT	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Dry	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal
*0023600	Bear River below Pilej Dam	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Dry	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Wet
*0032000	Smiths Fork, near Boncer, WY	Wet	Wet	Normal	Normal	Normal	Dry	Dry	Normal	Normal	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Wet
*0033000	Bear River below Smiths Fork, nr Cokeville, WY	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Normal	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal
*0033600	Bear River at Eolde, WY	Normal	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Normal	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal
*0041000	Thomas Fork, nr WY-ID State Line	Wet	Normal	Normal	Normal	Normal	Dry	Dry	Normal	Normal	Normal	Normal	Normal	Wet	Wet	Wet	Wet	Normal	Dry	Normal	Normal	Normal	Normal	Normal	Dry	Normal	Normal	Normal	Normal	Normal

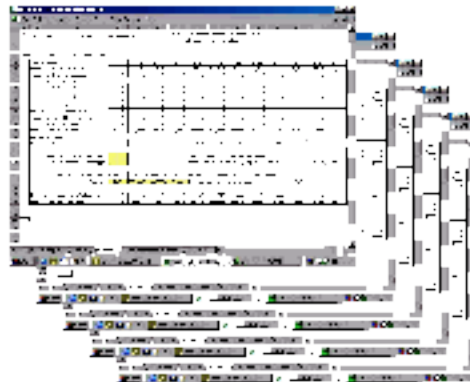
NOTE: Analysis is based upon the study period (1971 to 1999)



Structure of the Bear River Spreadsheet Model



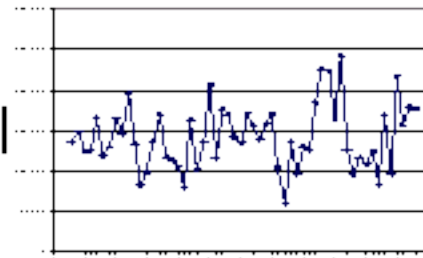
Graphical User Interface



Spreadsheet Model

Series of tables representing reaches and nodes.

One reach per page of spreadsheet



Output and Results

The Graphical User Interface (GUI)



Selection of Hydrologic Condition via GUI

River Basin Planning Model

Dry Year Model

Normal Year Model

Wet Year Model

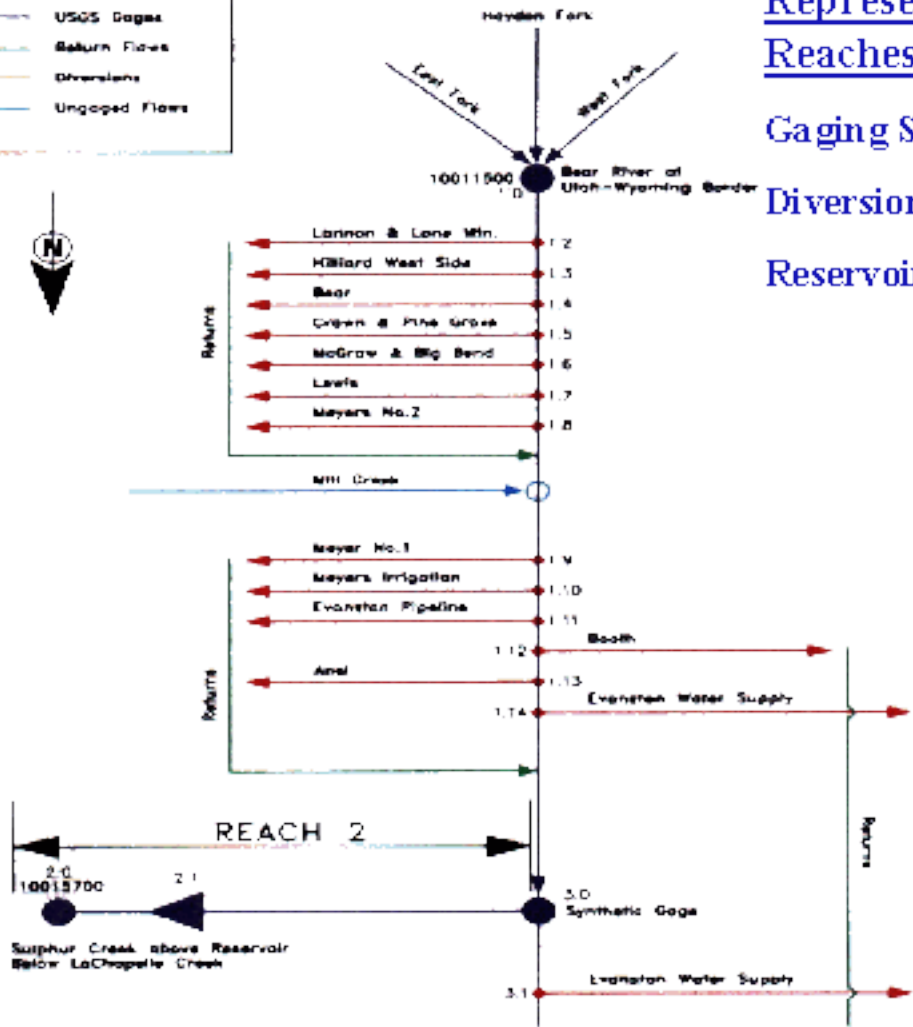
About Bear Model

Tutorial

The Node Diagram

LEGEND

-  USGS Gages
-  Return Flows
-  Diversions
-  Ungaged Flows



A Graphical Representation of River Reaches:

Gaging Stations

Diversions

Reservoirs

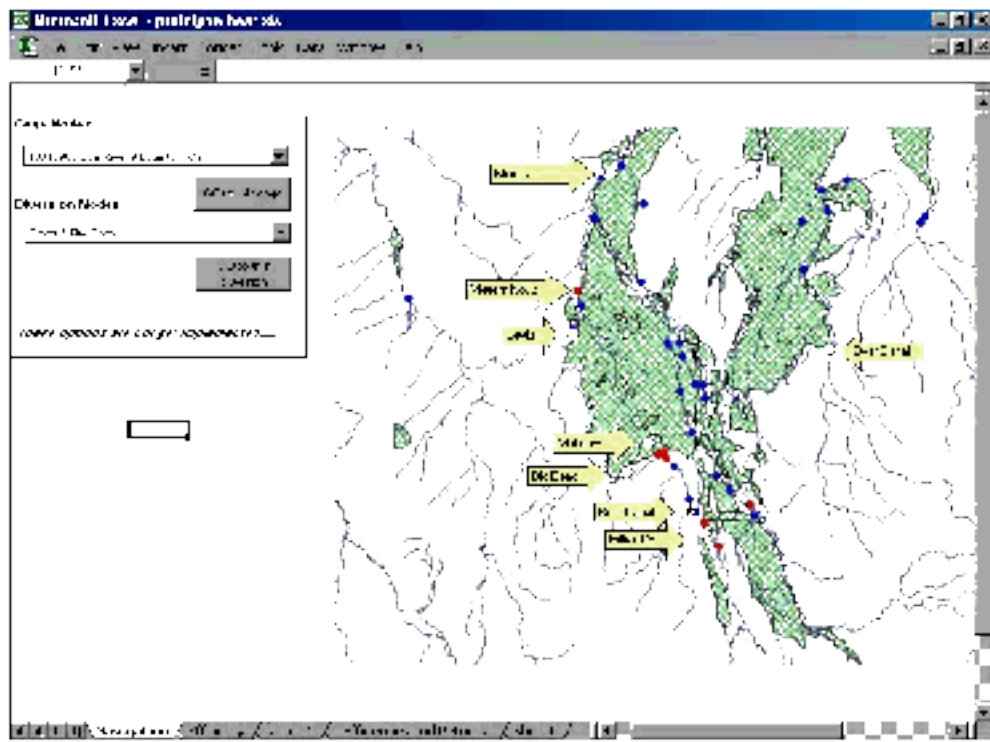
REACH 1

REACH 2

Sulphur Creek above Reservoir Below LaChapelle Creek



Navigation in the Spreadsheet



Methods of Navigation:

User-Friendly Navigation Buttons

Selection Boxes

All Standard Excel Commands

Return to Navigator View | Upstream Reach | Downstream Reach

Reach 5: Confluence Yellow Creek to Gauge 10020100 (Bear Above Woodriff Narrows Res.)

Node 5.1 Chapman Diversion

Inflow Table	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Node 5.1 Upstream Inflow	2,743	2,372	2,931	7,026	37,050	54,949	20,000	6,311	5,701	4,052	3,461	3,053
Node 5.1 Reach Inflow	0	0	0	0	0	0	0	0	0	0	0	0
Node 5.1 Return Flow	0	0	0	0	0	0	0	0	0	0	0	0
From Node _____	0	0	0	0	0	0	0	0	0	0	0	0
From Node _____	0	0	0	0	0	0	0	0	0	0	0	0
From Node _____	0	0	0	0	0	0	0	0	0	0	0	0
From Node _____	0	0	0	0	0	0	0	0	0	0	0	0
Node 5.1 Project Effects (Infl+)	0	0	0	0	0	0	0	0	0	0	0	0
Node 5.1 Inflow Export	0	0	0	0	0	0	0	0	0	0	0	0
Total Node 5.1 Inflow	2,743	2,372	2,931	7,026	37,050	54,949	20,000	6,311	5,701	4,052	3,461	3,053

Outflow Table	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Node 5.1 Diversion					3,047	8,130	4,203	1,498	1,371			

Diversion Efficiency Type: 1 Select Efficiency Type based upon type of use

Return Flow Delay Type: 1 Select Return Flow Delay Type based upon desired return distribution

These Diversions Will Return to: Node 5.2 Node _____ Node _____ Node _____ Node where these returns can be added

Relative Percentage: 1.0% 0% 0% 0% Percentage of returns to each node: 1.0

Net Return from Node 5.1 Diversion	0	0	0	0	858	1,982	1,367	899	725	0	0	0
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Note: the numbers in row above will be added back into the model at the nodes specified

Total Node 5.1 Outflow	2,743	2,372	2,931	7,026	32,003	46,920	15,497	4,813	3,370	4,052	3,461	3,053
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Node 5.2 Morris Bros. Irrigation Diversion

Mode 5.2: Morris Bros. Irrigation Diversion

Inflow Table	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Node 5.2 Upstream Inflow	2,740	2,772	2,931	7,025	32,000	46,020	17,797	4,010	4,707	4,072	3,461	3,070
Node 5.2 Reach GSH Loss	0	0	0	0	0	0	0	0	0	0	0	0
Node 5.2 Return Flow												
From Node 5.1	27	0	0	0	787	1,813	1,756	1,277	887	515	201	85
From Node _____	0	0	0	0	0	0	0	0	0	0	0	0
From Node _____	0	0	0	0	0	0	0	0	0	0	0	0
From Node _____	0	0	0	0	0	0	0	0	0	0	0	0
Irrigation Returns to Node 5.2	27	0	0	0	787	1,813	1,756	1,277	887	515	201	85
Node 5.2 (Project Effects) (Infl+)	0	0	0	0	0	0	0	0	0	0	0	0
Node 5.2 (Project Effects) (Export)	0	0	0	0	0	0	0	0	0	0	0	0
Total Node 5.2 Inflow	2,771	2,772	2,931	7,025	32,791	48,833	17,553	5,080	5,317	4,596	3,665	3,148

Outflow Table	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Diversion from Node 5.2					127	309	87	62	55			

Diversion Efficiency Type: 1 Select **Efficiency Type** based upon type of use
Return Flow Delay Type: 2 Select **Return Flow Delay Type** based upon desired return distribution

These Divisions Will Return to: Node 5.0 Node 5.1 Node 5.7 Node _____ Enter nodes to which these returns to
Relative Percentage: 80% 20% 1% _____ Percentage of returns to each node

Net Return from Node 5.2 Diversion	0	0	0	0	50	84	95	25	24	0	0	0
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Note: the numbers in row above will be added back into the model at the nodes specified

Total Node 5.2 Outflow	2,771	2,772	2,931	7,025	32,666	48,424	17,466	5,018	5,258	4,596	3,665	3,148
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