WATER MEASUREMENT

STAFF GAGE/OPEN CHANNEL REPORT FORM

DATE: _____

WATER RIGHT OWNER†'S NAME: [OWNER NAME]

NO: [WR# OR #'S]

LOCATION: [LOCATION]

USER INFORMATION: [SPECIAL DESCRIPTION OF PROJECT]

MEASUREMENTS REQUIRED: [WHEN TO MEASURE, ETC]

TYPE OF DEVICE USED: [DEVICE USED (IF KNOWN)]

A **DATE**	**B** **TIME**	**C** **STAFF GAGE READING** (*Circle one:* **FEET or INCHES)**	**D** **FLOW RATE** (*Circle one:* **CFS or GPM)**	**E** **VOLUME USED IN PERIOD**** (*Circle one:* **AF or GAL)**	**F** **TOTAL VOLUME USED** (*Circle one:* **AF or GAL)**
G. ≅ **TOTAL VOLUME USED THIS YEAR (***Circle one:* **GAL or AF)**					
H. ≅ **TOTAL VOLUME USED THIS YEAR IN AF** *(Conversion: 1 AF = 325,851 gallons)*					

Form WM-07-INS

WATER MEASUREMENT
OPEN CHANNEL REPORT FORM

INSTRUCTION SHEET FOR VOLUME CALCULATION

COLUMN A & B - DATE & TIME
Record the date and time the staff gage was read.

COLUMN C – STAFF GAGE READING
Enter the height of the water shown on the staff gage. Circle whether the height is in feet or inches.

COLUMN D – FLOW RATE
Find the staff gage reading in the appropriate rating table and enter the flow rate found. Circle whether the flow is CFS or GPM.

COLUMN E - VOLUME USED (AF)
The volume diverted during a period of time can be calculated from the average flow rate and the period of time that water is diverted. Use the following formulas to determine the *VOLUME USED IN PERIOD.*

Flow in CFS X Period of Operation in Hours X 0.0825 = Volume in Acre-Feet
Flow in GPM X Period of Operation in Hours X 60 = Volume in Gallons
Flow in GPM X Period of Operation in Hours X 0.00018 = Volume in Acre-Feet

COLUMN F – TOTAL VOLUME USED
Add the *VOLUME USED IN PERIOD*, Column E, in the same row to Column F*, TOTAL VOLUME USED THIS YEAR* in the space just above where you are working. (Example shown below: 27.8 + 36.6 = 64.4)

LINE G: TOTAL VOLUME USED THIS YEAR
Enter the last figure shown in Column F.

LINE H: TOTAL VOLUME USED THIS YEAR IN AF
If the total volume at the end of the season is in gallons, convert this number to acre-feet (Example: 10,439,000 → 325,851 GAL = 32.0 AF) and enter this number Line H.

A DATE	B TIME	C STAFF GAGE READING (*Circle one:* (FEET) or INCHES)	D FLOW RATE (*Circle one:* (CFS) or GPM)	E VOLUME USED IN PERIOD** (*Circle one:* (AF) or GAL)	F TOTAL VOLUME USED (*Circle one:* (AF) or GAL)
06/10/94	10:00	0.37	2.50		
06/16/94	14:00	0.46	3.50	***36.6***	***36.6***
06/20/94	8:00	0.64	4.00	***27.8***	***64.4***
				(circle)	***64.4***
TOTAL VOLUME USED THIS YEAR IN AF *(Conversion: 1 AF = 325,851 gallons)*					***64.4***

CALCULATIONS

06/10/94 TO 06/16/94
Time: (6 days X 24 hr/day) + 4 hr = 148 hr
Ave. Flow: (2.50 CFS + 3.50 CFS) → 2 = 3.00 CFS
Volume: 3.00 CFS X 148 hr X 0.0825 = 36.6 AF

Total Volume: 0.0 AF + 36.6 AF = 36.6 AF

06/16/94 TO 06/20/94

Time:	(3 days X 24 hr/day) + 18 hr = 90 hr
Ave. Flow:	(3.50 CFS + 4.00 CFS) ÷ 2 = 3.75 CFS
Volume:	3.75 GPM X 90 hr X 0.0825 = 27.8 AF
Total Volume:	36.6 AF + 27.8 AF = 64.4 AF