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## ENVIRONMENTAL DEFENSE

finding the ways that work

To: Trinity River Adaptive Management Workgroup  
 From: Spreck Rosekrans, Environmental Defense  
 Date: November 8, 2005  
 Subject: Trinity River flows

The frequency of required flows that result from implementation of the Trinity River Mainstem Restoration Plan will depend on how year types are determined.

The Plan calls for river flows below Lewiston to depend on the Trinity River "Year-Type". The Year-Type depends on the annual flow volume during a water year (October-September). When springtime releases from Lewiston Dam for outmigration and river channel restoration and maintenance are made, the water year is not yet over, so it impossible to know the correct water Year-Type with certainty.

The Environmental Impact Statement analysis of alternatives was based on actual hydrology and therefore actual Year-Type. The Record of Decision, on the other hand, indicates that a 90% (adverse) forecast be used on April 1 to determine Year-Type. The difference between these two approaches averages about 49 TAF per year, or about 17% of the projected annual increase, under the preferred alternative, in flow allocation from 340 TAF to 623 TAF.

Table 1 below provides estimates of the frequency of occurrence of flows by Year-Type as specified by the restoration plan if (a) the April 1 90% forecast were used, (2) the April 1 50% forecast were used, and (3) actual flows were somehow used.

Water-Year Class	Hydrologic Trigger (TAF)	Trinity River Allocation (TAF)	Adverse (90%) April 1 Forecast	Median (50%) April 1 Forecast	Actual Annual Flow
Extremely Wet	More than 2000	815	9%	12%	16%
Wet	Between 1350 and 2000	701	26%	35%	33%
Normal	Between 1025 and 1350	647	19%	19%	19%
Dry	Between 650 and 1025	453	33%	26%	26%
Critically Dry	Less than 650	369	14%	9%	7%
Average Annual River Flow (TAF)			574	610	623

This calculation is described in more detail in Environmental Defense's letter to Michael Ryan dated July 19, 2001.