TABLE B - COST ALLOCATION STUDIES
SUMMARY OF FIRST COSTS, INVESTMENTS, AND ANNUAL CHARGES FOR PROJECT PURPOSES
PEMBILIER DAM AND LAKE

ITEM	MULTIPLE-PURPOSE PROJECT COST	SINGLE-PURPOSE PROJECT COSTS FLOOD CONTROL	SINGLE WATER SUPPLY	SINGLE RECREATION	TWO-PURPOSE FLOOD CONTROL AND WATER SUPPLY	TWO-PURPOSE FLOOD CONTROL AND RECREATION	TWO-PURPOSE WATER SUPPLY AND RECREATION	SEPARABLE COSTS FLOOD CONTROL	SEPARABLE WATER SUPPLY	SEPARABLE RECREATION	JOINT COSTS
Direct first costs											
Lands and damages[1]	$710,000	$680,000	-	$235,000	$710,000	$710,000	$235,000				
Highway Relocations	1,354,000	1,354,000	-	450,000	1,354,000	1,354,000	450,000				
Reservoir	178,000	0	-	178,000	178,000	178,000	196,000				
Embankment	4,807,000	4,660,000	$685,000[2]	1,200,000	4,807,000	4,807,000	1,200,000				
Spillway	4,778,000	4,826,000	-	2,380,000	4,778,000	4,778,000	2,380,000				
Outlet Works	3,902,000	3,866,000	-	1,170,000	3,902,000	3,902,000	1,370,000				
Channels	110,000	110,000	-	-	110,000	110,000	-				
Fish & Wildlife Mitigation	726,000	459,000	-	630,000	726,000	726,000	630,000				
Recreation Facilities[1]	1,186,000	0	-	1,186,000	-	1,186,000	1,186,000				
Total Direct Costs	17,751,000	15,955,000	685,000	7,429,000	16,565,000	17,751,000	7,647,000	$10,104,000	0	$1,186,000	$6,461,000
Indirect Costs											
Engineering and design	1,061,000	920,000	69,000	443,000	946,000	1,061,000	456,000				
Supervision and Administration	988,000	845,000	68,000	413,000	873,000	988,000	425,000				
Total Indirect first costs	2,049,000	1,765,000	137,000	856,000	1,819,000	2,049,000	881,000	1,168,000	0	230,000	651,000
Total First Costs	19,800,000	17,720,000	822,000	8,285,000	18,384,000	19,800,000	8,528,000	11,272,000	0	1,416,000	7,112,000
Project Investment											
Interest during Construction[5] (Lands)	117,000	112,000	-	26,000	117,000	117,000	26,000	91,000	0	0	26,000
Interest during Construction[5]	1,497,000	1,406,000	49,300[3]	443,000	1,458,000	1,497,000	456,000	1,041,000	0	39,000	417,000
Present worth of deferred construction	0	0	170,500	0	-	-	-	0	0	0	0
Total project investment	21,414,000	19,238,000	1,041,800	8,754,000	19,959,000	21,414,000	9,010,000	12,404,000	0	1,455,000	7,555,000
Annual Costs (1980-2080)											
Interest and amortization[5]	1,183,400	1,063,100	63,000[3]	483,700	1,102,900	1,183,400	497,900	685,000	0	80,500	417,400
Operation, Maintenance, and Replacements	74,700	28,000	54,000[4]	49,700	63,000	74,700	49,700	25,000	0	11,700	38,000
Total annual costs	1,258,100	1,091,100	117,000	533,400	1,165,900	1,258,100	547,600	710,500	0	92,200	455,400
Annual benefits [6]	1,324,400	1,104,500	120,200	99,700	1,224,700	1,204,200	219,900	1,104,500	120,000	99,700	0
Net Benefits	66,300	13,400	3,200	-433,700	58,800	-53,900	-327,700				
Benefit-cost ratio	1.05	1.01	1.03	0.19	1.05	0.96	0.40				

(1) Exclusive of lands for fish and wildlife mitigation, recreation development, and natural preservation areas.
(2) Total cost of channel dam and water supply network from Red River of the North to Neche.
(3) Using non-Federal interest rate of 6 percent.
(4) Includes energy and extra treatment costs.
(5) Interest rate is U.S. Federal interest rate of 5½ percent.
(6) Flood control, water supply, and recreation benefits include $133,200, $3,200, and $2,300 regional benefits, respectively.