

Alberta Irrigation Information 2001



ALBERTA IRRIGATION DISTRICTS

**Alberta Irrigation Information
For The Year 2001**



**Irrigation Branch
Irrigation Development Section**

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INTRODUCTION

This report is prepared by Alberta Agriculture, Food and Rural Development; Irrigation Branch. The purpose of this booklet is to provide a statistical overview of pertinent irrigation data relating primarily to the thirteen irrigation districts situated in southern Alberta.

LIST OF TABLES

	<u>Page No.</u>
Table I – Details of Crops Grown Within The Thirteen Irrigation Districts - 2001	2
Table II – Summary of Crops Grown Within The Thirteen Irrigation Districts - 2001	3
Table III – On Farm Irrigation Method Summary	4
Table IV – Assessment Roll Acres Within The Thirteen Irrigation Districts.....	6
Table V – Acres Actually Irrigated Within The Thirteen Irrigation Districts.....	7
Table VI – Irrigation Districts Annual Water Rates	8
Table VII – Crops Grown Within the Blood Tribe Agricultural Project (BTAP)	9
Table VIII – South Saskatchewan River Basin Annual Irrigation Diversions	10
Table IX – Irrigation District Conveyance Infrastructure By Type of Works.....	11
Table X – Alberta Potato Acreage	12
Table XI – Alberta Vegetable Growers	12
Table XII – Irrigation District Reservoirs	13
Table XIII – Provincially Owned and Operated Reservoirs.....	14
Table XIV – Hydroelectric Plants Associated With Water Distribution Works.....	14
Table XV – Private Water Licences for Irrigation in Alberta	15
Table XVI – Total Rainfall.....	17

LIST OF FIGURES

Figure 1 – Irrigated Crop Mix.....	5
Figure 2 – On-Farm Irrigation Method Mix.....	5
Figure 3 – Precipitation in Southern Alberta (Lethbridge and Brooks Area).....	16
Figure 4 – Precipitation in Southern Alberta (Bow Island Area).....	17
Figure 5 – Map Showing Irrigation Districts and Major Irrigation Works Within Southern Alberta	

Table II - SUMMARY OF CROPS GROWN WITHIN THE THIRTEEN IRRIGATION DISTRICTS - 2001

IRRIGATION DISTRICTS														
CROPS	AID	LID	MVID	RCID	BRID	EID	LNID	MID	RID	SMRID	TID	UID	WID	TOTAL ASSESSMENT ROLL ACRES
CEREALS	913 25.3%	446 9.4%	234 6.3%	0 0.0%	81,524 38.8%	73,462 26.1%	33,291 20.3%	6,999 38.2%	17,879 38.7%	151,313 40.8%	24,112 29.3%	12,971 37.8%	25,253 28.7%	428,397 32.7%
FORAGES	2,698 74.7%	4,111 86.3%	3,221 86.8%	1,210 100.0%	63,548 30.3%	174,549 62.0%	110,950 67.7%	10,309 56.3%	27,112 58.6%	126,816 34.2%	28,386 34.5%	19,634 57.2%	54,002 61.4%	626,546 47.9%
OIL SEEDS	0 0.0%	0 0.0%	15 0.4%	0 0.0%	12,425 5.9%	6,187 2.2%	5,557 3.4%	700 3.8%	1,004 2.2%	15,945 4.3%	557 0.7%	1,233 3.6%	4,316 4.9%	47,939 3.7%
SPECIALTY CROPS	0 0.0%	0 0.0%	0 0.0%	0 0.0%	43,757 20.8%	25,156 8.9%	3,343 2.0%	292 1.6%	181 0.4%	67,221 18.1%	25,331 30.8%	172 0.5%	3,672 4.2%	169,125 12.9%
OTHER	0 0.0%	206 4.3%	242 6.5%	0 0.0%	8,673 4.1%	2,356 0.8%	10,737 6.6%	0 0.0%	59 0.1%	9,630 2.6%	3,875 4.7%	319 0.9%	681 0.8%	36,778 2.8%
TOTAL ASSESSMENT ROLL ACRES	3,611	4,763	3,712	1,210	209,927	281,710	163,878	18,300	46,235	370,925	82,261	34,329	87,924	1,308,785

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Table III - ON-FARM IRRIGATION METHOD SUMMARY
 Alberta Irrigation Districts
 (acres covered by an irrigation system)

IRRIGATION METHOD	AID	BRID	EID	LID	LNID	MID	MVID	RCID	RID	SNRID	TID	UID	WID	Individual Method Total	Total Acres Covered
CENTRE PIVOT	Pivot High Pressure	374	75,809	43,294	822	12,256	3,730	40	10,957	11,245	15,040	6,900	25,764	206,231	
	Pivot High Pressure - Corner arm		5,581	2,740		4,954			567	1,151	1,776		500	17,269	695,577
	Pivot Low Pressure		34,139	60,656		26,474	2,984		4,994	204,708	25,905	3,938	15,560	379,358	
	Pivot Low Pressure - Corner Arm percent of total -----	15.8%	4,975	5,087	39.7%	37,624	52.0%	36.7%	3.3%	657	35,193	8,895	141	147	92,719
WHEEL MOVE	Wheel Move - Two Laterals	998	26,722	39,819	832	28,723	7,371	118	18,614	73,027	20,892	3,039	12,208	232,363	
	Wheel Move - Four Laterals		20,865	18,709	424	41,083			2,777	12,605	4,658	346	2,697	104,164	341,482
	Linear - High Pressure			345		597			100	130	176		130	1,478	
	Linear - Low Pressure percent of total -----	42.3%	1,695	21.5%	26.4%	45.0%	40.3%	3.4%	49.4%	1,174	389	32.1%	80	3,477	27.2%
GRAVITY	Gravity - Developed - No Control		7,613	76,819	135	105	3,946	547	1,267	759	600	94		91,885	
	Gravity - Developed - Controlled		18,282	12,600	175	1,025		568	1,587	374	1,672	2,253	270	38,806	206,957
	Gravity - Undeveloped - Flood	501	7,505	17,040	2,091	1,390			1,242	15,168	1,195	4,741	20,288	74,553	
	Gravity - Undeveloped - Subsurface percent of total -----	21.2%	1,404	38.3%	50.4%	1.6%	21.6%	96.6%	9.5%	4	4	4.3%	180	1,713	16.5%
OTHER	Volume Gun - Stationary		59			209				143	10		200	621	
	Volume Gun - Traveller			371		370				202	22		1,198	2,163	
	Solid Set (underground sprinkler)			25		543			95	216			212	1,091	
	Hand Move (sprinkler above ground)	488	201	1,123	284	985	269		695	1,582	105	96	966	6,794	11,720
	Micro - Spray - Sprinkler					18			42	28	8		101	197	
	Micro - Drip - Trickle								7	77			770	854	
Other Use percent of total -----	20.7%	0.1%	0.5%	6.0%	1.4%	1.5%	0.0%	0.0%	1.9%	0.6%	0.2%	4.2%	0.9%	0.9%	

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Figure 1 - Irrigated Crop Mix

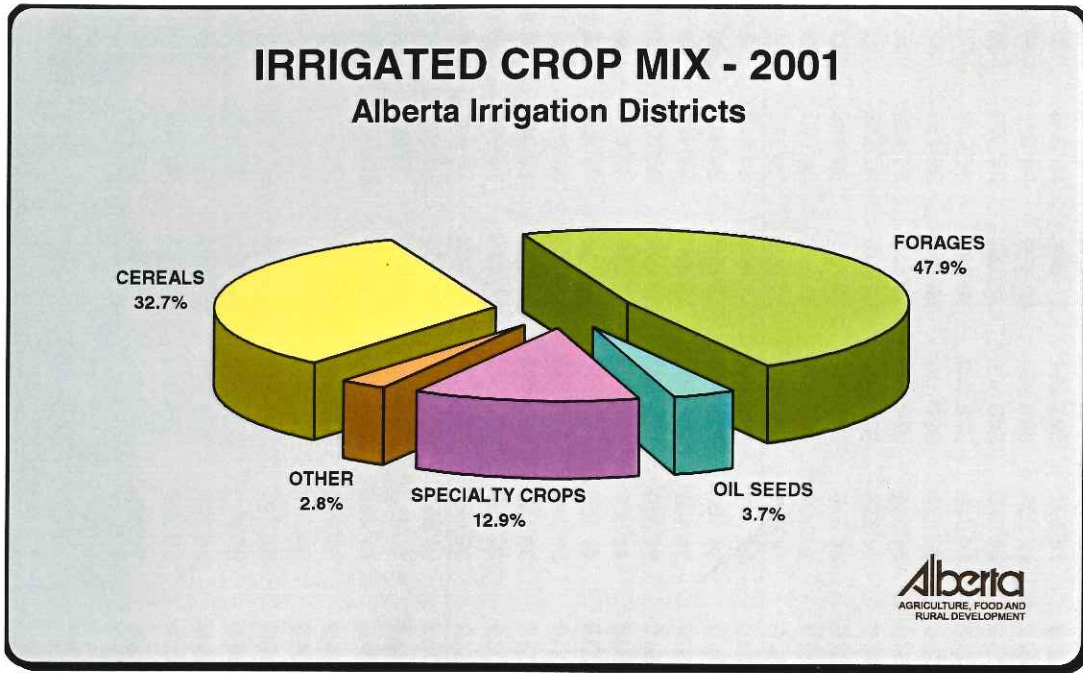


Figure 2 - On-Farm Irrigation Method Mix

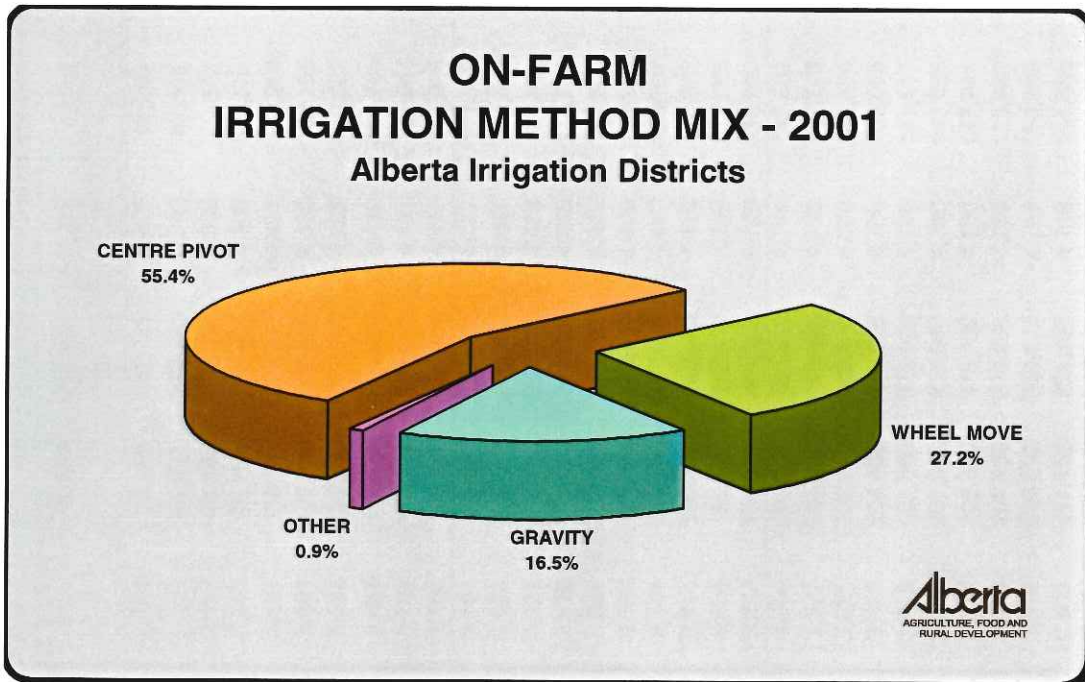


Table IV - ASSESSMENT ROLL ACRES WITHIN THE THIRTEEN IRRIGATION DISTRICTS

YEAR	AID	BRID	EID	LID	LNID	MID	MVID	RCID	RID	SMRID	TID	UID	WID	TOTAL
1970	6,673	23,783	199,729	4,523	89,360	8,506	3,719	2,068	20,847	197,540	57,484	33,353	44,006	691,591
71	6,548	24,071	200,459	4,343	89,883	8,105	3,719	2,068	20,349	199,572	59,172	33,353	43,949	695,591
72	3,131	24,196	202,225	4,305	89,379	9,042	3,719	2,068	20,269	204,051	59,833	33,353	43,899	699,470
73	3,081	26,756	205,481	4,305	98,206	9,182	3,719	2,068	20,647	216,136	61,692	33,353	43,919	728,545
74	3,081	118,741	207,245	4,421	105,958	9,077	3,717	2,068	23,257	237,244	63,823	34,034	44,219	856,885
1975	3,081	131,764	212,982	4,430	108,106	8,871	3,720	2,068	26,920	252,019	62,692	33,358	45,311	895,322
76	3,081	139,665	219,405	4,430	109,629	9,069	3,720	2,069	28,350	262,231	66,423	33,358	52,190	933,620
77	3,081	147,795	224,967	4,430	111,735	9,480	3,720	1,319	31,626	274,301	68,178	33,617	68,549	982,798
78	3,104	153,120	227,202	4,431	111,947	10,737	3,717	1,776	31,570	284,151	68,815	33,651	71,603	1,005,824
79	3,104	150,160	227,254	4,477	111,924	10,797	3,710	1,776	31,524	287,329	69,828	33,546	74,525	1,009,954
1980	3,104	164,889	229,110	4,477	112,562	10,797	3,710	1,776	33,681	293,126	70,368	33,544	76,029	1,037,173
81	3,096	174,641	230,553	4,457	113,845	10,963	3,710	1,776	35,385	299,548	70,819	33,417	79,633	1,061,843
82	3,127	179,613	239,651	4,423	114,919	11,647	3,710	1,716	39,130	301,446	71,529	33,383	81,864	1,086,158
83	2,916	181,174	244,099	4,440	116,745	12,357	3,710	1,776	39,148	313,728	72,623	33,448	81,480	1,107,644
84	3,051	183,529	244,243	4,440	117,869	13,047	3,710	1,776	41,729	319,712	72,971	33,534	82,974	1,122,585
1985	3,399	185,034	246,658	4,460	118,883	14,218	3,710	1,319	44,990	328,063	73,063	33,854	84,245	1,141,896
86	3,444	189,202	247,804	4,460	126,307	14,579	3,690	1,210	44,950	331,493	73,314	34,336	83,924	1,158,713
87	3,444	190,263	249,372	4,479	128,867	14,885	3,690	1,210	44,407	334,285	73,654	34,450	85,405	1,168,411
88	3,435	192,424	252,432	4,709	131,565	15,030	3,690	1,210	44,196	339,091	73,602	34,615	86,198	1,182,197
89	3,500	194,977	256,353	4,729	133,620	15,569	3,700	1,210	44,144	342,451	74,898	34,818	87,242	1,197,211
1990	3,500	199,980	260,523	4,742	135,632	15,099	3,728	1,210	44,044	349,849	74,568	34,769	88,480	1,216,124
91	3,527	201,070	263,889	4,762	137,719	16,665	3,728	1,210	44,305	350,108	77,740	34,687	88,112	1,227,522
92	3,519	202,499	269,462	4,800	139,688	16,391	3,734	1,210	44,279	351,393	78,177	34,868	87,949	1,237,969
93	3,519	204,466	270,008	4,780	138,095	16,775	3,737	1,210	44,229	353,039	78,412	34,772	87,453	1,240,495
94	3,519	205,983	272,024	4,780	141,517	16,785	3,727	1,210	44,219	353,466	78,629	34,438	86,725	1,247,022
1995	3,519	207,652	273,848	4,780	143,608	17,908	3,727	1,210	43,678	356,618	78,676	34,428	86,942	1,256,594
96	3,519	209,560	276,405	4,760	147,241	18,169	3,727	1,210	44,315	358,399	79,069	34,506	87,258	1,268,138
97	3,519	209,686	279,966	4,760	150,843	18,300	3,713	1,210	44,810	360,659	79,788	34,353	86,284	1,277,891
98	3,519	210,690	280,573	4,769	153,365	18,300	3,722	1,210	45,533	360,780	80,455	34,352	86,771	1,284,039
99	3,609	211,152	281,107	4,769	154,886	18,300	3,722	1,210	45,751	367,161	81,984	34,352	88,131	1,296,134
2000	3,609	210,352	281,720	4,763	157,825	18,300	3,722	1,210	45,888	369,771	82,257	34,329	87,236	1,300,982
01	3,611	209,927	281,710	4,763	163,878	18,300	3,712	1,210	46,235	370,925	82,261	34,329	87,924	1,308,785

NOTE: BRID increased 94,000 acres in 1974 with the amalgamation of the BRID and the Bow River Project (Federal).
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Table VI - IRRIGATION DISTRICTS ANNUAL WATER RATES
 (\$ per assessed acre per year)

YEAR	AID	BRID	EID	LID	LNID	MID	MVID	RCID	RID	SMRID	TID	UID	WID
1982	\$2.50	\$6.50	\$6.50	\$5.00	\$12.00	\$6.00	\$3.00	\$3.00	\$6.25	\$12.00	\$10.75	\$3.25	\$6.30
83	\$5.00	\$9.00	\$6.75	\$8.00	\$12.50	\$6.00	\$5.20	\$3.00	\$6.50	\$12.00	\$11.00	\$3.25	\$6.50
84	\$6.00	\$10.00	\$7.00	\$8.00	\$12.50	\$6.00	\$5.20	\$3.00	\$6.50	\$12.00	\$11.00	\$3.25	\$6.75
1985	\$6.00	\$10.00	\$7.00	\$7.50	\$12.50	\$6.00	\$5.20	\$4.00	\$6.50	\$12.00	\$11.00	\$3.25	\$7.25
86	\$6.00	\$10.00	\$7.25	\$7.50	\$12.50	\$6.00	\$5.20	\$6.00	\$6.50	\$13.00	\$11.00	\$3.25	\$7.47
87	\$6.00	\$10.00	\$7.50	\$7.50	\$12.50+\$.10 per psi*	\$6.00	\$5.20	\$6.00	\$6.50	\$13.00	\$11.00	\$3.25	\$7.47
88	\$7.00	\$10.00	\$7.50	\$8.00	\$12.50+\$.10 per psi*	\$6.00	\$5.20	\$6.00	\$6.50	\$13.00	\$12.00	\$3.25	\$7.70
89	\$7.00	\$10.00	\$8.00	\$8.00	\$13.50+\$.10 per psi*	\$6.00	\$6.20	\$6.00	\$6.50	\$13.25	\$12.00	\$3.50	\$8.00
1990	\$8.00	\$10.00	\$8.50	\$8.00	\$13.50+\$.10 per psi*	\$6.00	\$6.20	\$6.00	\$6.50	\$14.00	\$12.00	\$3.75	\$11.00
91	\$8.00	\$10.00	\$8.50	\$7.00	\$13.50+\$.10 per psi*	\$6.00+\$.10 per psi*	\$6.20	\$6.00	\$6.50	\$14.00	\$12.00	\$4.00	\$13.00
92	\$8.00	\$10.00	\$8.50	\$7.00	\$14.00+\$.12 per psi*	\$6.00+\$.10 per psi*	\$6.20	\$6.00	\$6.50	\$14.00	\$12.00	\$4.25	\$13.50
93	\$8.00	\$10.00	\$8.50	\$7.00	\$14.00+\$.12 per psi*	\$6.00+\$.10 per psi*	\$6.20	\$6.00	\$6.50	\$14.25	\$12.00	\$4.50	\$13.50+\$.10 per psi*
94	\$8.00	\$10.00	\$8.50	\$7.00	\$14.00+\$.12 per psi*	\$6.50+\$.10 per psi*	\$6.20	\$6.00	\$7.00	\$15.25	\$12.00	\$4.50	\$14.75+\$.15 per psi*
1995	\$8.00	\$10.00	\$8.50	\$8.00	\$14.00+\$.12 per psi*	\$7.00+\$.10 per psi*	\$8.00	\$8.50	\$7.00	\$16.15	\$12.00	\$4.50	\$14.75+\$.10 per psi*
96	\$8.00	\$10.00	\$8.50	\$8.00	\$14.00+\$.12 per psi*	\$7.00+\$.10 per psi*	\$8.00	\$8.50	\$7.50	\$16.15	\$12.00	\$6.50	\$15.25+\$.12 per psi*
97	\$8.00	\$10.00	\$7.50	\$8.00	\$14.00+\$.12 per psi*	\$7.00+\$.10 per psi*	\$8.00	\$8.50	\$7.50	\$16.15	\$12.00	\$6.75	\$15.25+\$.12 per psi*
98	\$8.00	\$10.00	\$7.50	\$8.00	\$14.00+\$.12 per psi*	\$7.50+\$.10 per psi*	\$8.00	\$8.50	\$8.50	\$16.65	\$12.00	\$7.00	\$16.25+\$.13 per psi*
99	\$8.00	\$10.00	\$7.50	\$8.00	\$14.00+\$.12 per psi*	\$7.50+\$.10 per psi*	\$8.00	\$8.50	\$8.50	\$17.00	\$12.00	\$7.25	\$16.25+\$.13 per psi*
2000	\$8.00	\$10.00	\$7.50	\$8.00	\$14.00+\$.12 per psi*	\$7.50+\$.10 per psi*	\$8.00	\$8.50	\$8.50	\$17.50	\$12.00	\$7.50	\$16.25+\$.13 per psi*
01	\$8.00	\$10.00	\$7.50	\$8.00	\$14.00+\$.12 per psi*	\$7.50+\$.10 per psi*	\$8.00	\$8.50	\$8.50	\$17.90	\$11.00	\$7.50	\$16.25+\$.26 per psi*

* The districts charge an additional charge for acres serviced by a pressure pipeline.

Table VII - CROPS GROWN WITHIN THE BLOOD TRIBE
AGRICULTURAL PROJECT (BTAP) - 2001

CROP TYPE		B.T.A.P.	
		licenced and covered by an Irrigation system	
		Irrigated this year	Not developed or Irrigated
CEREALS	Barley	3,595	
	CPS Wheat	147	
	Durum	1,266	
	Grain Corn		
	Hard Spring Wheat	2,597	
	Malt Barley		
	Oats		
	Rye		
	Soft Wheat	424	
	Tritcale		
	Winter Wheat		
FORAGES	Alfalfa - Two cuts		
	Alfalfa - Three cuts		
	Alfalfa Hay	115	
	Alfalfa Silage		
	Barley Silage		
	Barley Silage (underseeded)		
	Brome Hay		
	Corn Silage		
	Grass Hay		
	Green Feed		
	Milk Vetch		
	Native Pasture		
	Oats Silage		
	Sorghum/Sudan Grass		
Tame Pasture			
Timothy Hay	7,161		
OIL SEEDS	Canola	1,886	
	Flax		
	Hyola		
	Linola		
SPECIALTY CROPS	Mustard		
	Alfalfa Seed		
	Canary Seed		
	Caraway Seed		
	Carrots		
	Dill		
	Dry Beans		
	Dry Peas		
	Faba Beans		
	Fresh Corn (sweet)		
	Fresh Peas		
	Grass Seed	1,234	
	Hemp		
	Lawn Turf		
	Lentils		
	Market Gardens		
	Mint		
	Monarda		
	Nursery		
	Onions		
Potatoes			
Safflower			
Seed Potatoes			
Small Fruit			
Sugar Beets			
Sunflower			
OTHER	Miscellaneous		
	Non Crop		
	Summer Fallow		
	Unknown (not reported)		6,575
Total Development		18,425	--
Total Licenced Acres		25,000	

Table VIII - SOUTH SASKATCHEWAN RIVER BASIN ANNUAL IRRIGATION DIVERSIONS
Alberta Irrigation Districts

DISTRICT	OLDMAN RIVER BASIN										BOW RIVER BASIN				TOTALS
	AID	LID	LNID	MID	MVID	RCID	RID	SMRID	TID	UID	BRID	EID	WID		
WATER SOURCE	diversion from Belly River	diversion from Belly River	diversion from Oldman River	diversion from SMRID main canal	diversion from Belly River	diversion from Gros Ventre Ck. and Ross Ck.	diversion from SMRID main canal	diversion from Belly, Waterton and St. Mary Rivers	diversion from SMRID main canal	diversion from Belly and Waterton Rivers	diversion from Bow River	diversion from Bow River	diversion from Bow River		
EXPANSION LIMITS (acres)	3,560*	4,770	167,000	18,300	3,740*	1210*	46,500	372,000	82,200	34,400*	211,000*	286,000*	95,000	1,325,200	
CURRENT WATER LICENCES (acre ft.)	9,000	12,000	317,000	34,000	8,000	3,000	81,000	722,000	158,000	68,000	450,000	762,000	160,400	2,784,400	
YEAR	VOLUME OF WATER DIVERTED (acre ft.)														
1976			154,844	7,600		1,981	36,414	339,188	86,330	14,998	309,000	565,100	153,222	1,668,677	
77			169,436	14,300		2	48,317	423,509	122,209	31,050	304,600	572,100	137,008	1,822,531	
78			85,934	3,900		2,489	12,848	202,066	36,303	10,620	204,268	387,100	102,959	1,047,487	
79			138,630	9,500		5,561	24,521	303,097	94,736	23,517	262,593	542,846	138,630	1,543,631	
1980			134,576	6,100		0	19,944	340,254	94,858	17,754	287,892	548,686	136,198	1,588,262	
81			132,955	5,910		264	22,162	379,075	108,427	12,242	307,452	577,969	108,630	1,655,086	
82			142,683	9,404		3,551	27,697	332,337	91,998	19,133	281,000	481,258	129,712	1,518,773	
83			150,790	9,800		1,354	14,955	361,537	97,674	24,078	313,897	580,299	146,737	1,701,121	
84			177,543	14,106		67	17,544	492,674	101,643	25,093	322,336	657,640	162,140	1,970,785	
1985			184,029	13,457		4,250	27,302	425,563	95,751	24,193	337,409	655,188	158,697	1,943,406	
86			182,408	13,515		3,212	22,045	406,536	101,597	20,106	309,580	680,592	131,333	1,883,688	
87			181,597	11,761		3,180	40,559	426,434	98,621	19,958	275,841	639,928	129,712	1,838,948	
88			222,943	23,414		256	55,411	563,621	121,668	30,462	389,186	730,274	171,868	2,331,477	
89			198,622	10,795		122	34,540	504,255	78,396	18,372	301,442	605,148	122,416	1,894,988	
1990			192,136	16,196		298	32,000	467,244	98,572	16,133	380,907	689,178	128,091	2,033,127	
91			184,840	16,521		1,775	30,702	391,634	94,956	17,003	334,782	629,872	147,547	1,860,328	
92			137,008	12,261		0	32,070	441,745	101,122	18,628	335,878	625,650	135,387	1,659,253	
93			61,775	5,792		3,900	13,574	218,375	59,278	8,107	210,340	423,551	114,309	1,123,339	
94			180,000	8,073		758	28,328	415,162	103,028	16,827	364,126	559,476	132,104	1,819,636	
1995			110,200	2,180		861	17,600	385,290	79,818	7,710	302,305	602,098	116,254	1,627,874	
96			209,600	15,539		2,660	45,527	498,483	127,436	19,832	328,182	615,478	117,065	1,989,814	
97			193,574	7,337		1,529	38,043	466,000	115,582	20,364	343,428	572,151	116,740	1,887,752	
98			160,800	13,514		1,726	33,834	424,700	116,300	14,895	303,565	638,500	142,367	1,862,729	
99			179,987	20,800		2,499	42,960	411,532	105,208	20,900	298,524	426,788	88,410	1,614,208	
2000			245,976	30,160		0	58,202	540,200	140,046	37,200	417,897	675,000	156,400	2,325,021	
01			314,000	17,109		0	40,207	461,200	94,770	27,526	413,780	685,000	160,000	2,231,951	
Percent of Licence	43.9%	63.3%	99.1%	50.3%	85.2%	0.0%	49.6%	63.3%	60.0%	40.5%	92.0%	89.9%	99.6%	80.2%	
Avg. Volume	4,172	6,370	170,265	12,348	3,386	1,355	31,495	408,528	98,666	19,873	316,970	591,033	134,005	1,793,573	

NOTES: - Data is obtained from Water Survey of Canada (WSC), Alberta Environment and Irrigation Districts annual reports.
 - MID has another turnout which diverts water from the SMRID main canal. There is no data recorded at this site.
 - RCID has a second supply from Ross Creek, but data has not been consistently recorded here.
 - Expansion limit acres were redefined with some adjustments in the Irrigation Districts Act - 2000

PREPARED BY: ALBERTA AGRICULTURE, FOOD AND RURAL DEVELOPMENT, IRRIGATION BRANCH

Table IX - IRRIGATION DISTRICT CONVEYANCE INFRASTRUCTURE BY TYPE OF WORKS
Rehabilitated and Un-rehabilitated

Irrigation District	REHABILITATED										UN-REHABILITATED			Total Conveyance Works (km)
	Membrane-Lined Canals		Pipelines - Closed		Pipelines - Open		Concrete-Lined		Earth Canals		Un-Rehabilitated Canals			
	Length (km)	% of District Works	Length (km)	% of District Works	Length (km)	% of District Works	Length (km)	% of District Works	Length (km)	% of District Works	Length (km)	% of District Works		
AID	0	0.0%	13	43.3%	0	0.0%	0	0.0%	2	6.7%	15	50.0%	30	
BRID	175	16.6%	212	20.1%	18	1.7%	40	3.8%	198	18.8%	413	39.1%	1,056	
EID	235	12.4%	442	23.3%	39	2.1%	0	0.0%	245	12.9%	936	49.3%	1,897	
LID	2	3.3%	17	28.3%	1	1.7%	0	0.0%	22	36.7%	18	30.0%	60	
LNID	54	7.9%	187	27.3%	18	2.6%	54	7.9%	73	10.7%	298	43.6%	684	
MID	1	1.0%	50	48.5%	2	1.9%	0	0.0%	36	35.0%	14	13.6%	103	
MVID	0	0.0%	10	25.8%	2	5.1%	0	0.0%	18	46.2%	9	23.1%	39	
RCID	1	5.0%	0	0.0%	2	10.0%	0	0.0%	9	45.0%	8	40.0%	20	
RID	2	1.9%	78	72.9%	10	9.3%	0	0.0%	9	8.4%	8	7.5%	107	
SMRID	72	4.0%	599	33.2%	20	1.1%	121	6.7%	455	25.2%	537	29.8%	1,804	
TID	55	16.5%	146	43.7%	16	4.8%	20	6.0%	71	21.3%	26	7.8%	334	
UID	15	6.2%	37	15.3%	31	12.8%	0	0.0%	53	21.9%	106	43.8%	242	
WID	34	3.1%	38	3.5%	30	2.8%	5	0.5%	136	12.6%	839	77.5%	1,082	
Total	646	8.7%	1,829	24.5%	189	2.5%	240	3.2%	1,327	17.8%	3,227	43.3%	7,458	

NOTE: Rehabilitated infrastructure includes those works re-constructed through:
 > the Irrigation Rehabilitation Program (IRP)
 > Alberta Environment's headworks improvement program
 > Individual district O & M programs

Table X - Alberta Potato Acreage

Designation	Process	Seed	Table
1990	15,383	5,117	7,882
91	12,300	5,735	6,509
92	9,700	5,515	6,970
93	13,115	5,850	6,115
94	13,210	7,390	6,075
1995	13,450	7,400	5,765
96	13,870	8,485	5,085
97	12,225	9,430	5,025
98	12,800	10,250	5,100
99	24,616	1,888	4,698
2000	32,563	12,037	4,331
01	34,877	12,595	3,883

Notes:

- data is obtained from the Potato Growers of Alberta
- the above acreage is from the whole province of Alberta

Table XI - Alberta Vegetable Growers

(acres)

Designation	Carrots	Corn	Peas
1995	62	3,884	3,163
96	58	3,869	2,775
97	95	3,044	3,125
98	100	2,818	2,983
99	65	2,442	2,646
2000	79	2,577	2,563
01	90	3,992	3,967

Notes:

- data is obtained from the Alberta Vegetable Growers (Processing)
- processing is defined as canned or frozen vegetables for human consumption

Table XII - IRRIGATION DISTRICT RESERVOIRS

Location	Reservoir	Live storage (dam ³)	Live storage (acre-feet)
Bow River Irrigation District	Badger	53,650	43,494
	H reservoir	2,220	1,800
	Lost Lake	5,050	4,094
	Scope	19,740	16,003
Eastern Irrigation District	Cowoki Lake	19,735	15,999
	Crawling Valley	130,500	105,797
	J reservoir	615	499
	Kitsim	26,520	21,500
	Lake Newell	320,215	259,599
	One Tree	2,345	1,901
	Rock Lake	9,250	7,499
	Rolling Hills	17,515	14,199
	Snake Lake	18,230	14,779
	Tilley "A"	33,300	26,996
Tilley "B"	38,235	30,997	
Lethbridge Northern Irrigation District	Park Lake	740	600
	Picture Butte	1,600	1,297
	Vandenburg	114	92
Raymond Irrigation District	Corner Lake	495	401
	Craddock	615	499
	Factory Lake	370	300
St. Mary River Irrigation District	Bullshead	125	101
	Chin	190,330	154,301
	Cross Coulee	2,590	2,100
	Forty Mile	86,345	70,000
	Murray	30,590	24,799
	North East	2,095	1,698
	Raymond	1,600	1,297
	Sauder	37,745	30,600
	Seven Persons	1,355	1,099
	Sherburne Lake	10,625	8,614
	Stafford	23,315	18,901
Yellow Lake	n/a	n/a	
Taber Irrigation District	Fincastle	3,085	2,501
	Horsefly Lake	9,250	7,499
	Taber Lake	6,415	5,201
United Irrigation District	Cochrane Lake	3,100	2,513
Western Irrigation District	Chestermere Lake	5,180	4,199
	Langdon	7,895	6,400
Blood Tribe Irrigation Project	Mokowan	6,000	4,864
Total		1,128,694	915,034

Table XIII - PROVINCIALY OWNED AND OPERATED RESERVOIRS

Source Supply for:	Reservoir	Live storage (dam3)	Live storage (acre-feet)
Bow River Irrigation District	Little Bow	21,078	17,088
	McGregor	351,059	284,604
	Traverse	104,638	84,830
Lethbridge Northern Irrigation District	Keho	95,635	77,531
	Oldman River	490,180	397,390
Ross Creek Irrigation District	Cavan	4,625	3,749
Mountain View, Leavitt, Aetna	Payne	8,690	7,045
St. Mary Project (SMRID, MID, TID, RID)	Jensen	19,000	15,403
	Milk River Ridge	127,297	103,200
	St Mary	369,310	299,400
	Waterton	111,196	90,147
Diversions Outside of Irrigation Districts	Chain Lakes	14,679	11,900
	Little Bow River	62,700	50,831
	Pine Coulee	51,000	41,346
	Women's Coulee	362	293
Total		1,831,449	1,484,758

Table XIV - HYDROELECTRIC PLANTS ASSOCIATED WITH WATER DISTRIBUTION WORKS

Location	Owner	Capacity (megawatts)
Oldman Reservoir	ATCO Electric	32.0
Waterton Reservoir	Canadian Hydro	2.8
Belly River Chute	Canadian Hydro	3.0
St. Mary Reservoir	Canadian Hydro	2.5
Taylor Coulee Chute (Jensen Reservoir)	Canadian Hydro	12.7
Raymond Reservoir	Irrican	20.5
Chin Chute (Chin Reservoir)	Irrican	11.0

Table XV - PRIVATE WATER LICENCES FOR IRRIGATION IN ALBERTA

There are 2,786 individual irrigation projects, outside of the 13 irrigation districts, irrigating approximately 272,353 acres of farmland in Alberta. These projects vary in size from 3 acres to over several thousand acres of agricultural or horticultural production. Each of these projects is licenced to an individual or a group of producers. The agricultural feasibility of these projects is reviewed by Alberta Agriculture and the licencing is regulated by Alberta Environment.

RIVER BASIN	Total Acres Irrigated	No. of Licences 1 to 100 ac.	No. of Licences 101 to 300 ac.	No. of Licences over 300 ac.
ATHABASCA RIVER	2,501	44	7	1
MILK RIVER	19,257	101	45	15
NORTH SASKATCHEWAN RIVER	28,560	334	60	15
PEACE RIVER	3,471	76	8	0
SOUTH SASKATCHEWAN RIVER *				
- Bow River	27,312	144	64	22
- Little Bow River	13,928	108	36	6
- Lower Oldman River	11,095	15	20	9
- Red Deer River	39,597	417	85	17
- South Saskatchewan River	46,920	533	85	25
- Upper Oldman River	6,502	62	19	3
- Waterton / Belly / St. Mary Rivers	52,446	136	70	20
- Willow Creek	20,764	115	59	10
TOTAL	272,353	2,085	558	143

- Notes:
- upper Oldman reach is defined as upstream of the Belly River confluence
 - lower Oldman reach is defined as downstream of the Belly River confluence
 - 25,000 acres from the Waterton / Belly / St. Mary Rivers category is for the Blood Tribe Irrigation Project
 - data is obtained from Alberta Environment
 - does not include irrigation licences issued to irrigation districts in southern Alberta

Figure 3 - PRECIPITATION IN SOUTHERN ALBERTA

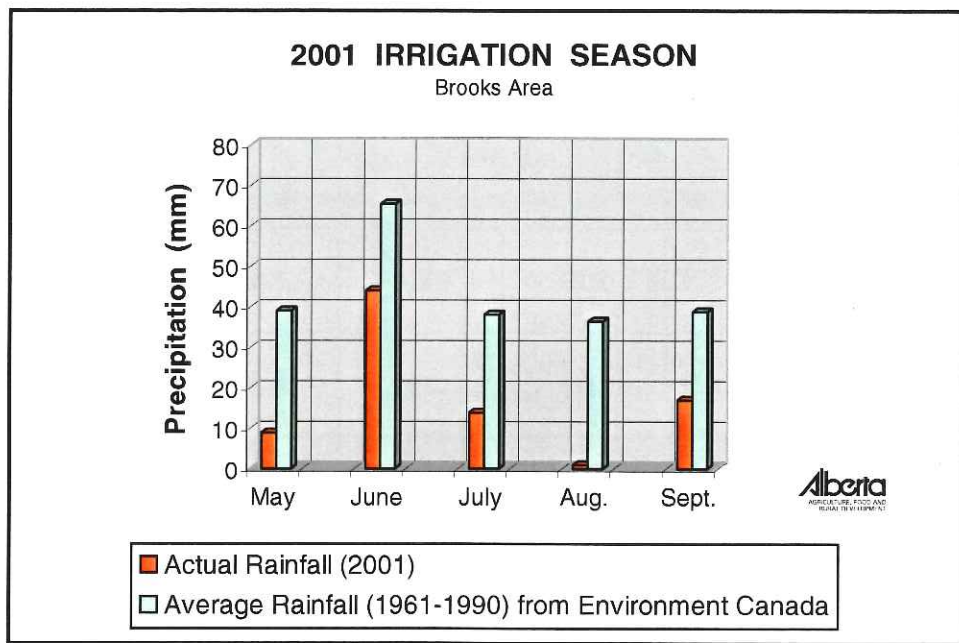
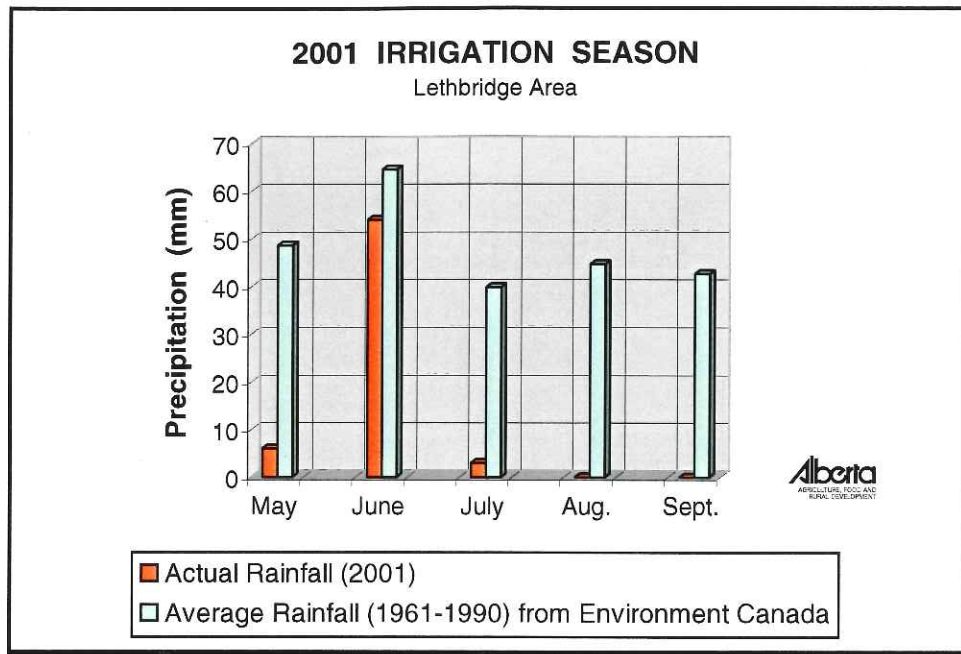


Figure 4 - PRECIPITATION IN SOUTHERN ALBERTA

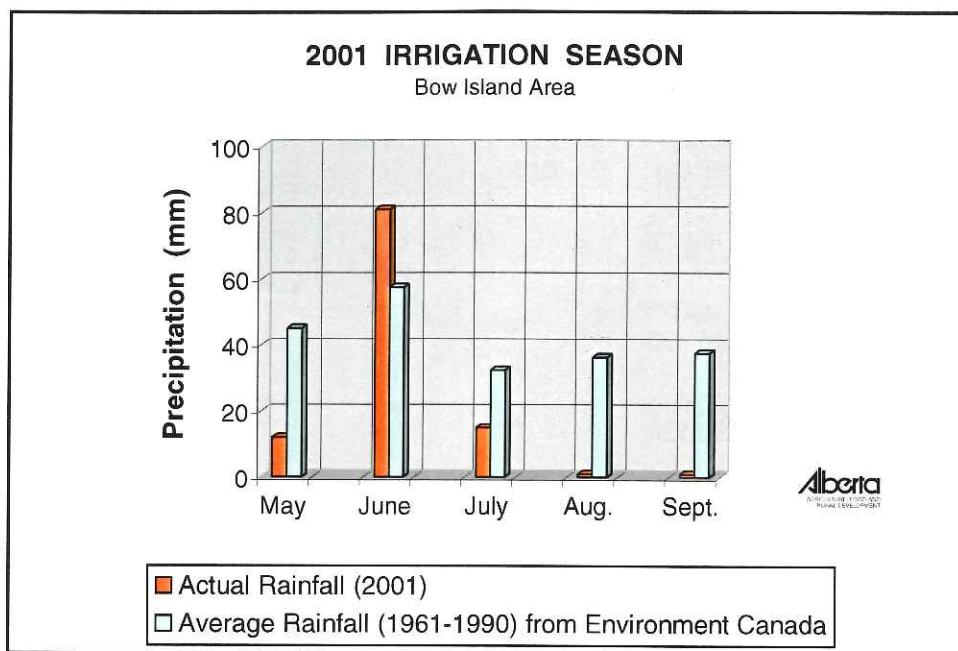
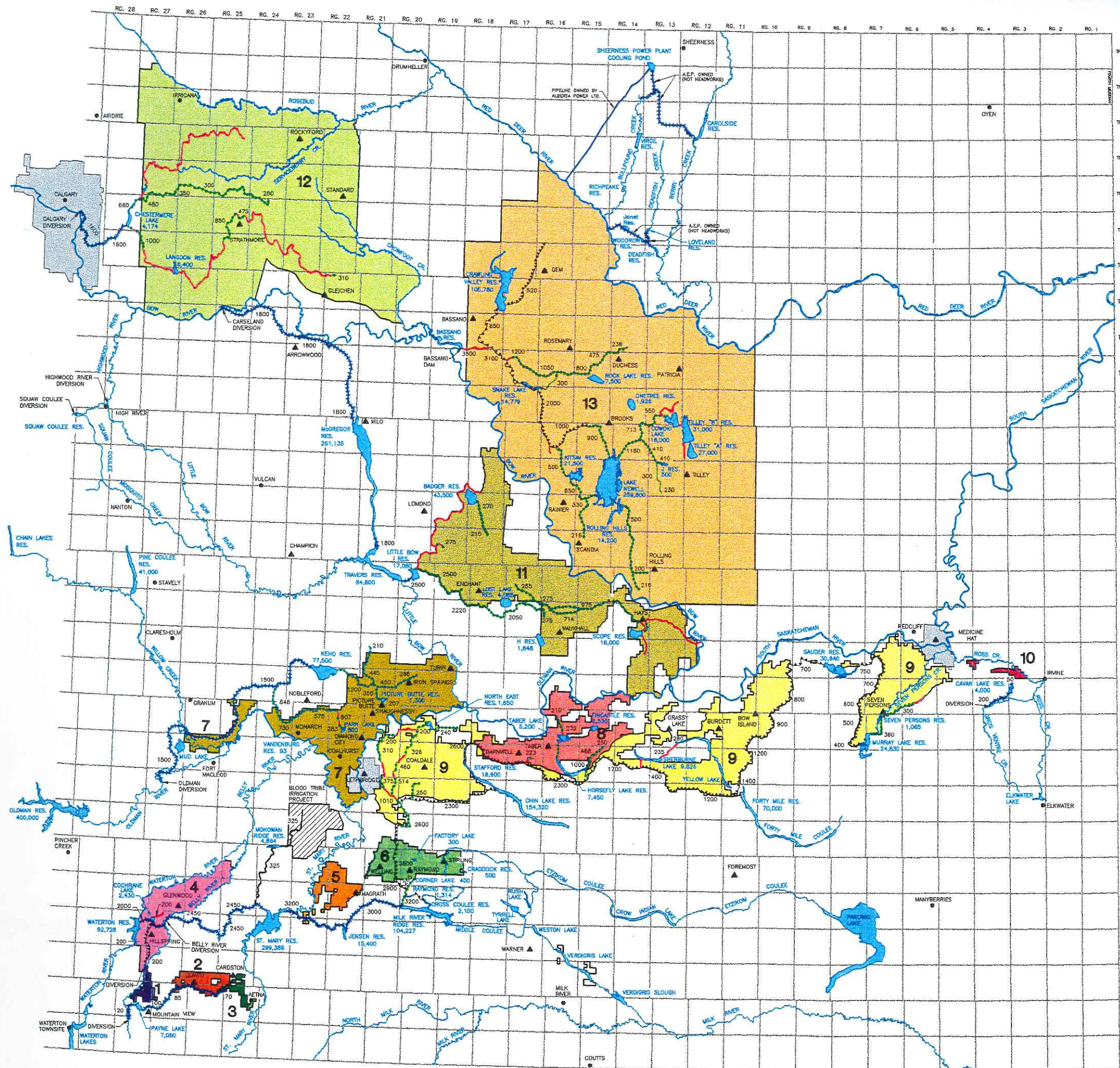


Table XVI - TOTAL RAINFALL

(from May 1 to Sept. 30)

AREA	RAINFALL 1998 (mm)	RAINFALL 1999 (mm)	RAINFALL 2000 (mm)	RAINFALL 2001 (mm)	AVERAGE RAINFALL 1961-1990 (mm)
Lethbridge	309.1	209.0	120.0	63.0	240.4
Brooks	175.8	312.2	100.0	85.0	217.9
Bow Island	194.6	208.0	113.0	110.0	208.8



- IRRIGATION DISTRICTS**
- 1 MOUNTAIN VIEW IRRIGATION DISTRICT
 - 2 LEAVITT IRRIGATION DISTRICT
 - 3 AETNA IRRIGATION DISTRICT
 - 4 UNITED IRRIGATION DISTRICT
 - 5 MAGRATH IRRIGATION DISTRICT
 - 6 RAYMOND IRRIGATION DISTRICT
 - 7 LETHBRIDGE NORTHERN IRRIGATION DISTRICT
 - 8 TABER IRRIGATION DISTRICT
 - 9 ST. MARY RIVER IRRIGATION DISTRICT
 - 10 ROSS CREEK IRRIGATION DISTRICT
 - 11 BOW RIVER IRRIGATION DISTRICT
 - 12 WESTERN IRRIGATION DISTRICT
 - 13 EASTERN IRRIGATION DISTRICT

- LEGEND**
- CITIES, TOWNS AND VILLAGES THAT DO NOT RECEIVE IRRIGATION WATER
 - ▲ CITIES, TOWNS AND VILLAGES THAT RECEIVE IRRIGATION WATER
 - HEADWORKS OWNED AND OPERATED BY AENV
 - CANALS REHABILITATED BY I.R.P. (200 cfs AND OVER) (DISTRICT OWNED AND OPERATED)
 - CANALS REHABILITATED BY AENV (200 cfs AND OVER) (DISTRICT OWNED AND OPERATED)
 - CANALS REMAINING TO BE REHABILITATED (200 cfs AND OVER) (DISTRICT OWNED AND OPERATED)

ALBERTA ENVIRONMENTAL PROTECTION (AENV) IRRIGATION REHABILITATION PROGRAM (I.R.P.)

NOTE: — MAJOR WORKS ARE CLASSIFIED AS CANALS 200 CFS AND OVER
 — RESERVOIR VOLUMES ARE IN (ACRE-FEET)
 — CANAL CAPACITIES ARE IN (CFS)

There are 13 irrigation districts in Southern Alberta providing water to 1,300,983 assessed acres of farmland. The infrastructure within these irrigation districts is comprised of approximately 7,600 kilometers of conveyance system, of which 1,553 kilometers are classified as major works.

IRRIGATION DISTRICTS AND MAJOR IRRIGATION WORKS WITHIN SOUTHERN ALBERTA

