

Historic ET Calcs based on FSA Crop Records:
Deer Flat Dam (NWS - USC00102444)

Crop	growing season precipitation deficit			Tract 3458											
	mm	in	ft	2008-2010		2011		2012		2014		2015		2016	
				acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)
Alfalfa (freq)	963	37.9	3.16	171.20	541.3	108.30	342.4			171.52	542.3	63.63	201.2	107.89	341.1
Field Corn	654	25.8	2.15			62.80	134.9	62.70	134.6					63.63	136.6
Spring grain (wheat)	540	21.3	1.77												
Turnips (i.e. Peas)	236	9.3	0.77												
Millet/Triticale (i.e. Peas)	236	9.3	0.77					63.60	49.3						
Grass (not irrigated)	0	0.0	0.00												
Greens (garden veg)	776	30.6	2.55												
Beans (seed)	386	15.2	1.27					45.20							
Total				171.20	541.3	171.10	477.3	171.50	183.9	171.52	542.3	63.63	201.2	171.52	477.8
Average Pdef over 171.52 ac (af/ac)				3.16		2.78		1.07		3.16		1.17		2.79	
Acres required for 81 afa				25.7		29.1		75.5		25.6		69.1		29.1	

Crop	growing season precipitation deficit			Tract 3458											
	mm	in	ft	2017		2018		2019		2020		2021		2022	
				acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)	acres	Pdef (af)
Alfalfa (freq)	963	37.9	3.16	107.89	341.1	107.89	341.1	45.19	142.9	n/a	n/a	n/a	n/a		
Field Corn	654	25.8	2.15	63.63	136.6					n/a	n/a	n/a	n/a		
Spring grain (wheat)	540	21.3	1.77			14.00	24.8			n/a	n/a	n/a	n/a		
Turnips (i.e. Peas)	236	9.3	0.77			49.63	38.5	126.33	97.9	n/a	n/a	n/a	n/a		
Millet/Triticale (i.e. Peas)	236	9.3	0.77											87.98	68.2
Grass (not irrigated)	0	0.0	0.00											80.54	0.0
Greens (garden veg)	776	30.6	2.55											3.00	7.6
Beans (seed)	386	15.2	1.27												
Total				171.52	477.8	171.52	404.4	171.52	240.8	0.00	0.0	0.00	0.0	171.52	75.8
Average Pdef over 171.52 ac (af/ac)				2.79		2.36		1.40		0.00		0.00		0.44	
Acres required for 81 afa				29.1		34.4		57.7		#DIV/0!		#DIV/0!		183.2	

Conversion Calculations

81 afa estimated domestic demand for 240 residents
3.16 ft/yr for peak consumptive crop mix (100% alfalfa)
25.7 acres retired from irrigation to satisfy domestic demand

