



Section 9 – Existing Supply – Local Groundwater for Park Irrigation

Content

- a. Local Groundwater for Park Irrigation Details

Summary

The City will complete Phase I and II in 2007. Phase III will be proposed in the 2007-08 Annual Budget. Phase I will save about 125 million gallons annually, and help reduce peak day demand by about 740,000 gallons. Phase II will save about 102 million gallons annually, and help reduce peak day demand by about 610,000 gallons. The project will still use water, but the water will come from local wells instead of CRMWA and the BCWF.

When complete, the project could save the City over 1 billion gallons annually with a corresponding decrease in peak day demand.

Summary Plan for Park Conversion to Well Water for Irrigation

		Percentage of Potable Demand	Percentage of Parks Demand
City of Lubbock Potable Demand (MG/Y)	13,477.93	100.00%	
Phase I (11 parks)	124.64	0.92%	9.19%
Phase II (7 parks)	101.99	0.76%	7.52%
Parks remaining to test hole (27 parks)	274.00	2.03%	20.21%
Parks remaining already tested (13 parks)	696.37	5.17%	51.35%
Parks which can not be irrigated with GW (20 parks)	159.00	1.18%	11.73%
Total Parks Demand (78 parks)	1,356.00	10.06%	100.00%

Phase I Parks - Spring 2007

Park Names	Location	Total Acres	Lake Acres	Irrigated Acres	Flow Demand (gpm)	Irrigation Demand (MGD)	Irrigation Demand per Year (MG)	Phase	Irrigation Wells
Duran	26th & Kewanee	8.00		8.00	181	0.05	7.82	1	2
Elmore, Leroy	6806 Peoria Ave, 79413	43.13	15.48	27.65	625	0.16	27.03	1	3
Hoel, Phil	9002 Chicago Ave, 79424	11.33	2.00	9.33	211	0.05	9.12	1	2
Kastman	3401 S. Loop 289, 79423	14.45		14.45	327	0.08	14.13	1	2
Lopez	Auburn & Chicago	8.00		8.00	181	0.05	7.82	1	1
Mahon, George	3208 Chicago Ave, 79407	15.10	0.70	14.40	325	0.08	14.08	1	2
Remington (estimated)	5308 70th St.,	19.00	4.00	15.00	339	0.09	14.66	1	2
Ribble O.W.	6003 Ave U, 79412	18.02	3.51	14.51	328	0.08	14.19	1	2
Rogers	3202 Amherst St., 79415	8.30		8.30	188	0.05	8.11	1	2
Smith, Preston	1504 Chicago Ave., 79416	4.30		4.30	97	0.03	4.20	1	1
Stevens, Jack	5203 75th St., 79424	16.66		3.55	223	0.02	3.47	1	2
Total		166.29	25.69	127.49	3,024	0.74	124.64		21

Phase II Parks - Summer 2007

Park Names	Location	Total Acres	Lake Acres	Irrigated Acres	Flow Demand (gpm)	Irrigation Demand (MGD)	Irrigation Demand per Year (MG)	Phase	Irrigation Wells
Andrews, Clifford H.	8002 Memphis, 79423	35.35	24.85	10.50	268	0.06	10.26	2	1
Higginbotham, Frank	1803 Vicksburg Ave, 79416	23.42	5.61	17.81	403	0.10	17.41	2	3
Hood, Mose	2601 Ave Q, 79405	11.66		11.66	264	0.07	11.40	2	1
Huneke, Henry	4102 84th St., 79423	15.54	4.22	11.32	256	0.07	11.07	2	1
McAllister, Bill (ball park only)	6401 Brownfield Hwy, 79424	12.00		12.00	271	0.07	11.73	2	1
Mc Cullough, N.B.	2710 91st St., 79423	23.33	3.56	19.77	447	0.12	19.33	2	2
Miller, Bill & Ann	3602 S. Loop 289, 79423	31.43	4.26	21.27	481	0.12	20.79	2	3
	Total	152.73	42.50	104.33	2,389	0.61	101.99		12

Combined Phase I & Phase II Parks

Park Names	Location	Total Acres	Lake Acres	Irrigated Acres	Flow Demand (gpm)	Irrigation Demand (MGD)	Irrigation Demand per Year (MG)	Phase	Irrigation Wells
Andrews, Clifford H.	8002 Memphis, 79423	35.35	24.85	10.50	268	0.06	10.26	2	1
Duran	26th & Kewanee	8.00		8.00	181	0.05	7.82	1	2
Elmore, Leroy	6806 Peoria Ave, 79413	43.13	15.48	27.65	625	0.16	27.03	1	3
Higginbotham, Frank	1803 Vicksburg Ave, 79416	23.42	5.61	17.81	403	0.10	17.41	2	3
Hoel, Phil	9002 Chicago Ave, 79424	11.33	2.00	9.33	211	0.05	9.12	1	2
Hood, Mose	2601 Ave Q, 79405	11.66		11.66	264	0.07	11.40	2	1
Huneke, Henry	4102 84th St., 79423	15.54	4.22	11.32	256	0.07	11.07	2	1
Kastman	3401 S. Loop 289, 79423	14.45		14.45	327	0.08	14.13	1	2
Lopez	Auburn & Chicago	8.00		8.00	181	0.05	7.82	1	1
Mahon, George	3208 Chicago Ave, 79407	15.10	0.70	14.40	325	0.08	14.08	1	2
McAllister, Bill	6401 Brownfield Hwy, 79424	279.00		12.00	271	0.07	11.73	2	1
Mc Cullough, N.B.	2710 91st St., 79423	23.33	3.56	19.77	447	0.12	19.33	2	2
Miller, Bill & Ann	3602 S. Loop 289, 79423	31.43	4.26	21.27	481	0.12	20.79	2	3
Remington (estimated)	5308 70th St.,	19.00	4.00	15.00	339	0.09	14.66	1	2
Ribble O.W.	6003 Ave U. 79412	18.02	3.51	14.51	328	0.08	14.19	1	2
Rogers	3202 Amherst St., 79415	8.30		8.30	188	0.05	8.11	1	2
Smith, Preston	1504 Chicago Ave., 79416	4.30		4.30	97	0.03	4.20	1	1
Stevens, Jack	5203 75th St., 79424	16.66		3.55	223	0.02	3.47	1	2

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586.02

68.19

231.82

5,413

1.35

226.63

33

Future Phases - Test Holes Requested for Parks

Park Names	Location	Total Acres	Lake Acres	Irrigated Acres	Flow Demand at 17 gpm (40hrs irr.)	Flow Demand at 22.6 gpm (30hrs irr.)	Irrigation Demand (MGD)	Irrigation Demand per Year (MG)	Targeted for Testhole Services
Aztlan	1002 1st Pl, 79401	18.54		18.54	315	419	0.11	18.13	Y
Berry	302 E. 35th St., 79404	9.10		9.10	155	206	0.05	8.90	Y
Buddy Holly Recreational Area	2519 Canyon Lake Rd., 79415	19.60	8.00	11.60	197	262	0.07	11.34	Y
Butler, Ernest	2706 E. 5th St., 79403	6.00		6.00	102	136	0.03	5.87	Y
Carlise W.A.	2601 Ave X, 79411	4.50		4.50	77	102	0.03	4.40	Y
Casey, David	6602 Ave W, 79412	8.10	3.28	4.82	82	109	0.03	4.71	Y
Cooke Park	15th & Kirby	8.00		8.00	136	181	0.05	7.82	Y
Crow, Earl	2702 91st St., 79423	10.17	2.79	7.38	125	167	0.04	7.21	Y
Davies, Judge Walter	1320 Clemson St., 79415	6.00		6.00	102	136	0.03	5.87	Y
Guy, Charles A.	3802 93rd St., 79423	20.30	4.90	15.40	262	348	0.09	15.06	Y
Hamilton	2307 21st St., 79411	6.60		6.60	112	149	0.04	6.45	Y
Hodges, Helen	N. University 79413	13.10		13.10	223	296	0.08	12.81	Y
Hollins	2202 Auburn St., 79415	6.40		6.40	109	145	0.04	6.26	Y
Jennings, Jan	7305 Wayne Ave, 79424	34.58	3.10	31.48	535	711	0.18	30.78	Y
Lewis, Jack	1102 56th St., 79412	8.40		8.40	134	190	0.05	8.21	Y
Lusk, Willie	1310 E. 25th St., 79404	7.69		7.69	131	174	0.04	7.52	Y
Maegden	107 N. Boston	4.51		4.51	77	102	0.03	4.41	Y
Maxey	4020 30th St., 79410	70.89	20.62	50.27	855	1136	0.29	49.14	Y
McAllister, Bill	6401 Brownfield Hwy, 79424	279.00		12.00	204	271	0.07	11.73	Y
Pioneer	2019 6th St., 79401	4.20		4.20	71	95	0.02	4.11	Y
Ratliff, W.	4902 Chicago Ave., 79414	6.26		6.26	106	141	0.04	6.12	Y
Reagan	Olive & Colgate	4.30		4.30	73	97	0.03	4.20	Y
Sims	Marlborough & King	5.00		5.00	85	113	0.03	4.89	Y
Strong	80th & Ave. U	8.00		8.00	136	181	0.05	7.82	Y
Stubbs, Lou	1314 37th St., 79423	8.00		8.00	136	181	0.05	7.82	Y
Underwood	74th & Cedar	8.00		8.00	136	181	0.05	7.82	Y
Whisperwood Median	4th & Whisperwood Median	5.00		5.00	85	113	0.03	4.89	Y

27

590.24 42.69 280.55 4,761 6,340 1.63 274 27

Low Volume Parks/Open Space - Possibly Not Convert

Park Names	Location	Total Acres	Lake Acres	Irrigated Acres	Flow Demand at 17 gpm (40hrs irr.)	Flow Demand at 22.6 gpm (30hrs irr.)	Irrigation Demand (MGD)	Irrigation Demand per Year (MG)	Testholes Installed	Notes
Burns	1204 24th St., 79405	3.00		3.00	51	68	0.02	2.93		
Canyon Rim	Baylor St. & N. Ave N	2.71		2.71	46	61	0.02	2.65		
Carter, Clayton	724 E. Queens St., 79403	3.30		3.30	56	75	0.02	3.23		
Chatman, J.A.	908 E. 28th St., 79404	3.00		3.00	51	68	0.02	2.93		
Comancheria Lake #3	N. Ave U & Erskine St.	163.10	15.00							
#1 & #2	2605 Canyon Lake Rd., 79415	164.30	60.00							
Davis, A.B.	4102 Nashville Ave, 79414	8.50		8.50	145	192	0.05	8.31	1 TBV	Dry Hole
Dunbar Historical Lake (#6)	2010 M.L.King Jr. Blvd., 79415	381.70	85.00	88.00	1,496	1989	0.51	86.03		
Gateway Plaza	Broadway & Ave Q	0.50		0.50	9	11	0.00	0.49		
Guadapule	102 N. Ave L., 79415	3.66		3.66	62	83	0.02	3.58		
Guadapule Strip	320 N. Ave N. 79415	4.14		4.14	70	94	0.02	4.05		
Hinajosa, Barbara	7336 22nd St., 79416	9.00		3.00	51	68	0.02	2.93		
McCrummen	2001 19th St., 79411	2.34		0.50	9	11	0.00	0.49		
Overton, M.C.	2001 14th St., 79401	2.00		2.00	34	45	0.01	1.96		
Rawlings, Copper	213 40th St., 79404	2.50		2.50	43	57	0.01	2.44		
Sedberry, Will	903 Guava Ave., 79403	5.00		5.00	85	113	0.03	4.89		
Undeveloped	Colgate & N. Frankford Ave	11.58				0	0.00	0.00		
Vaquero Lake	I-27., Bates St & N Ave Q Dr.	32.92	5.95	26.97	458	610	0.16	26.37		
Washington	106 E. 23rd St., 79404	3.50		3.50	60	79	0.02	3.42		
Wheelock	2912 40th St., 79413	2.00		2.00	34	45	0.01	1.96		

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808.75 165.95 162.28 2,760 3,668 0.94 159 0

Irrigated Area (acres)

	Number of Parks	Acres	Percentage of Total Area
Total Irrigated Area		1,486.71	100.00%
Phase I (11 parks) Irrigated Area	11	127.49	8.58%
Phase II (7 parks) Irrigated Area	7	104.33	7.02%
Acreage of remaining parks to be test holed (27 parks)	27	368.55	24.79%
Irrigated acreage of parks already tested testholed (13 parks)	5	155.58	10.46%
Irrigated with other water sources (5 parks)	5	526.48	35.41%
Irrigated acreage of parks which can not be irrigated with GW (24 parks)	24	204.28	13.74%
Total Parks Demand (79 parks)	79	1,486.71	100.00%