

# Ditch Survey

For:

## Lake Ditch



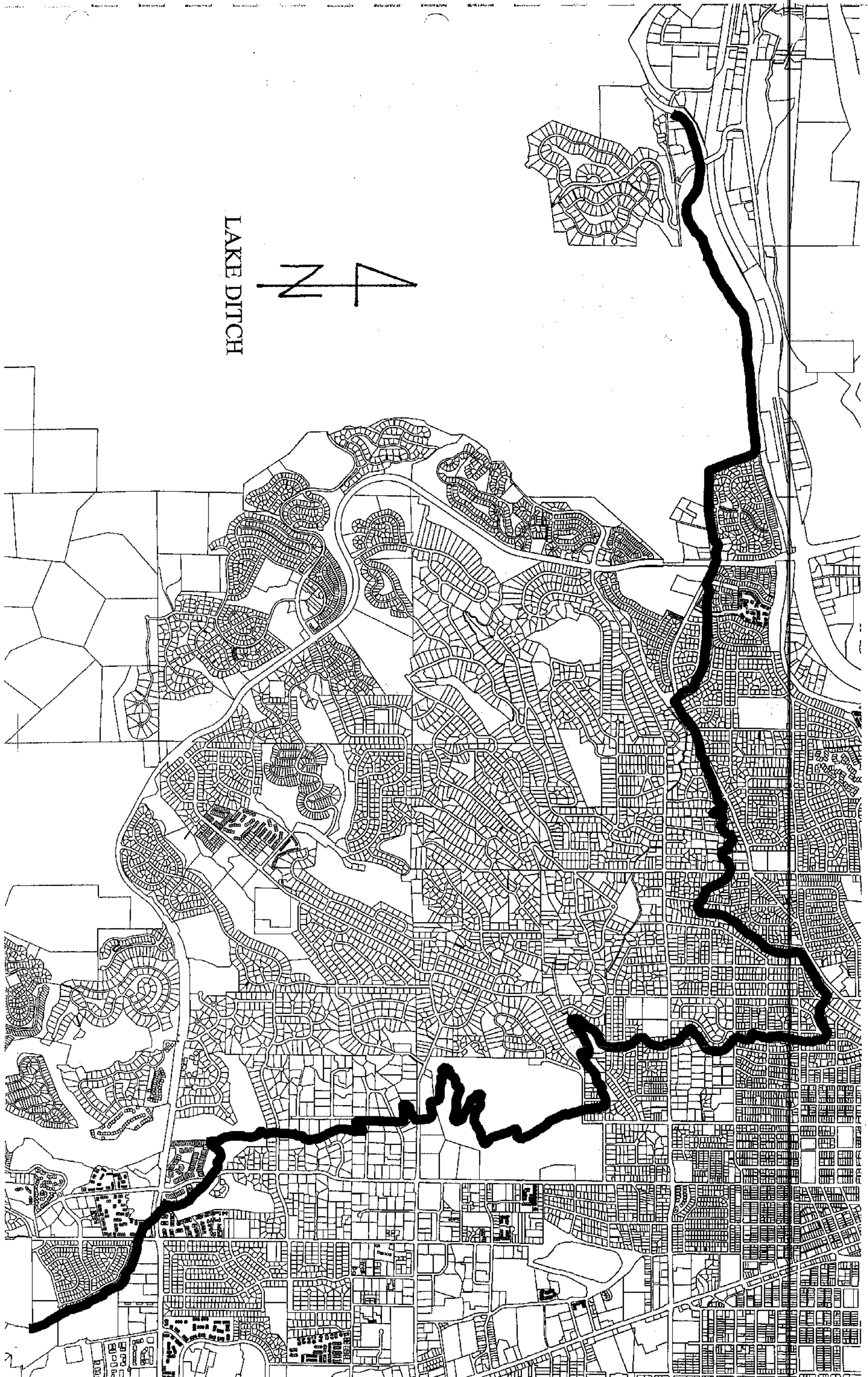
*Prepared for:*

City of Reno, Public Works Department  
P.O. Box 1900  
Reno, Nevada 89505

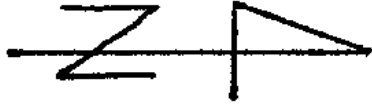
*Prepared by:*

 **Gray & Associates** INC.  
CIVIL ENGINEERS • PLANNERS • SURVEYORS  
130 VINE STREET  
RENO, NEVADA 89503

December 2, 2003



LAKE DITCH



PHOTOS



LAKE 3001



LAKE 3002



LAKE 3003



LAKE 3004



LAKE 3005



LAKE 3006



LAKE 3007



LAKE 3009



LAKE 3010



LAKE 3011



LAKE 3012



LAKE 3013



LAKE 3014



LAKE 3014B



LAKE 3015



LAKE 3016



LAKE 3017



LAKE 3017B



LAKE 3018



LAKE 3018B



LAKE 3019



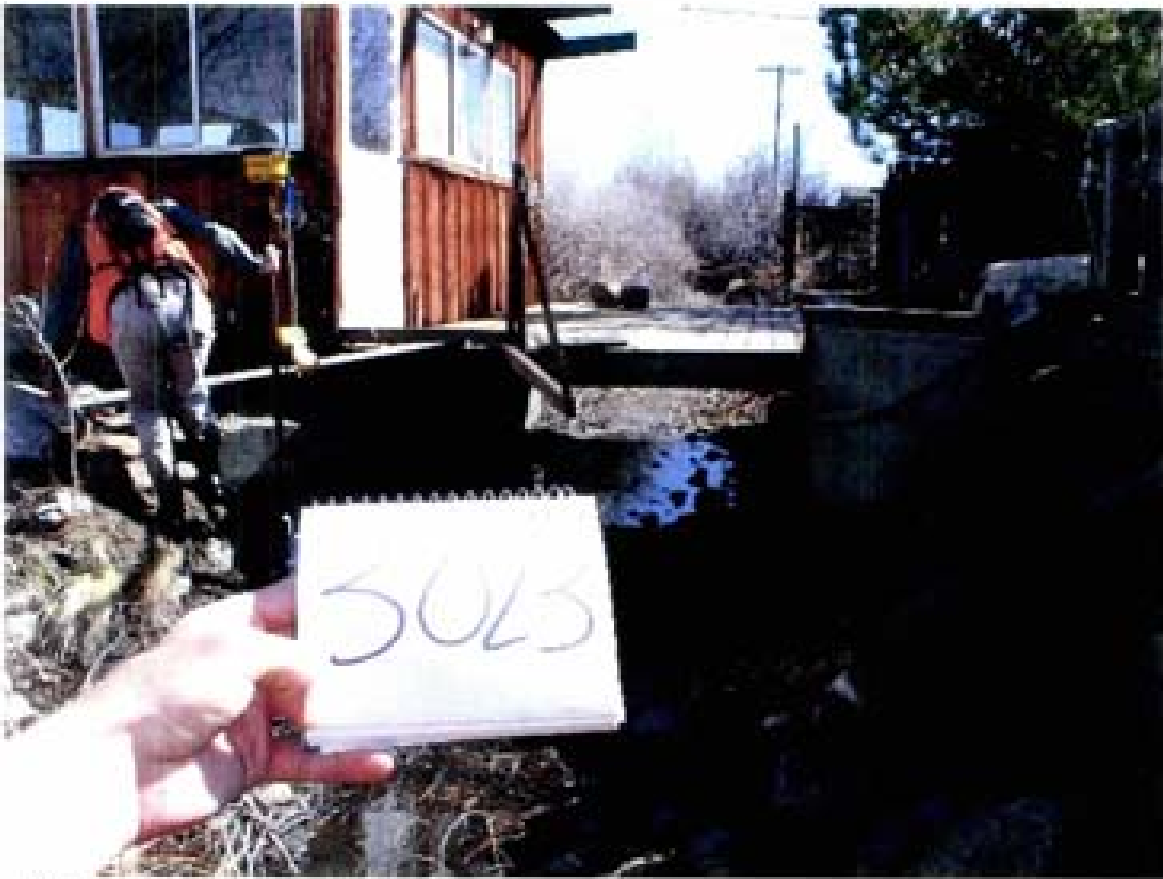
LAKE 3020



LAKE 3021



LAKE 3022



LAKE 3023



LAKE 3024



LAKE 3025



LAKE 3025B



LAKE 3026



LAKE 3027



LAKE 3028



LAKE 3029



LAKE 30298



LAKE 3030



LAKE 3031



LAKE 3032

*Point Lake*



LAKE 3033



*My Stone*

LAKE 3034



LAKE 3035



LAKE 3035B



LAKE 3036



LAKE 3038



LAKE 3039



LAKE 3040



LAKE 3041



LAKE 3042

4000 ft. elevation



LAKE 3044



LAKE 3045

3045 to 3046



LAKE 3045B

*Drill to Alton Creek  
to measure sediment - Alton Creek*



LAKE 3046



LAKE 3047



LAKE 3048



LAKE 3049



LAKE 3050

*Rem-fun 1/21*



LAKE 3052



LAKE 3053



LAKE 3054



LAKE 3056



LAKE 3057



LAKE 3058



LAKE 3059



LAKE 3060



LAKE 3061



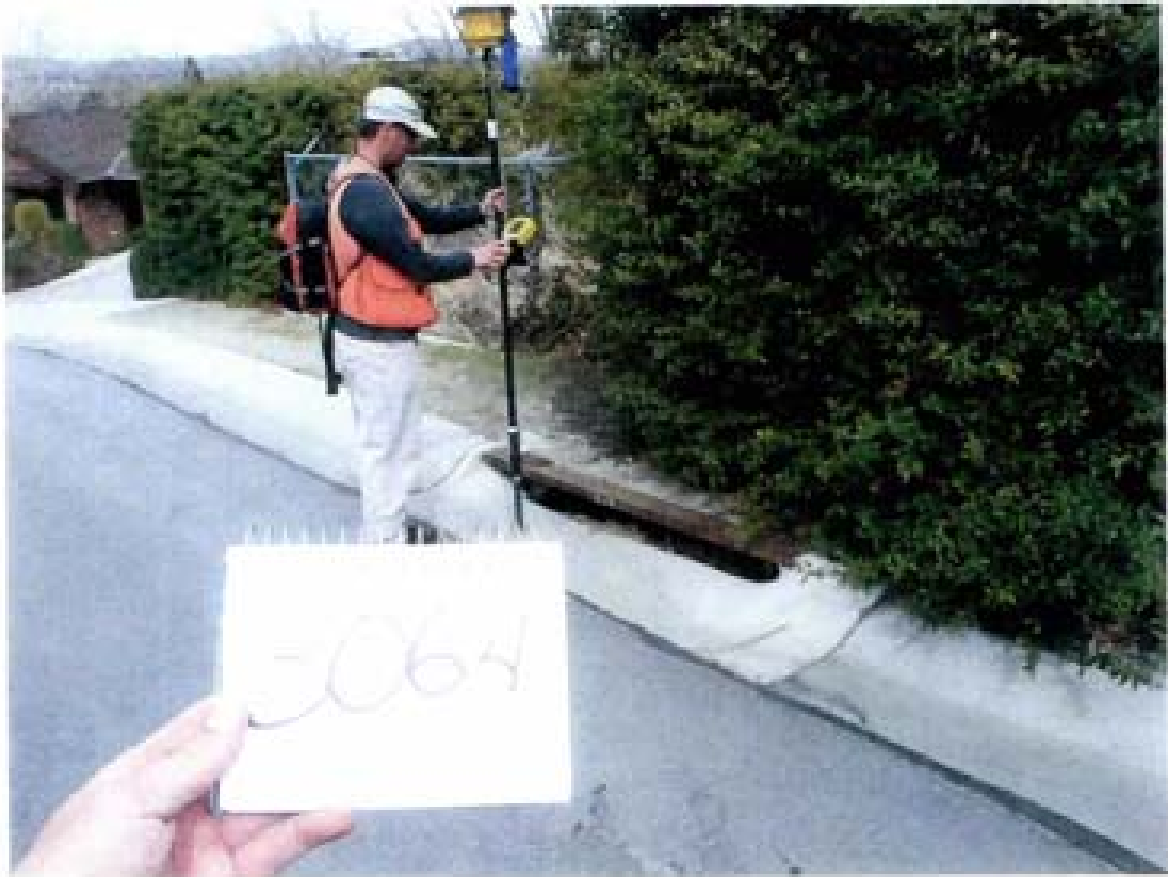
LAKE 3062



LAKE 3063



LAKE 3064



LAKE 3064B



LAKE 3067



LAKE 3067B



LAKE 3068



LAKE 3069



LAKE 3071



LAKE 3072



LAKE 3073



LAKE 3075



LAKE 3077



LAKE 3078



LAKE 3079



*3080*

LAKE 3080



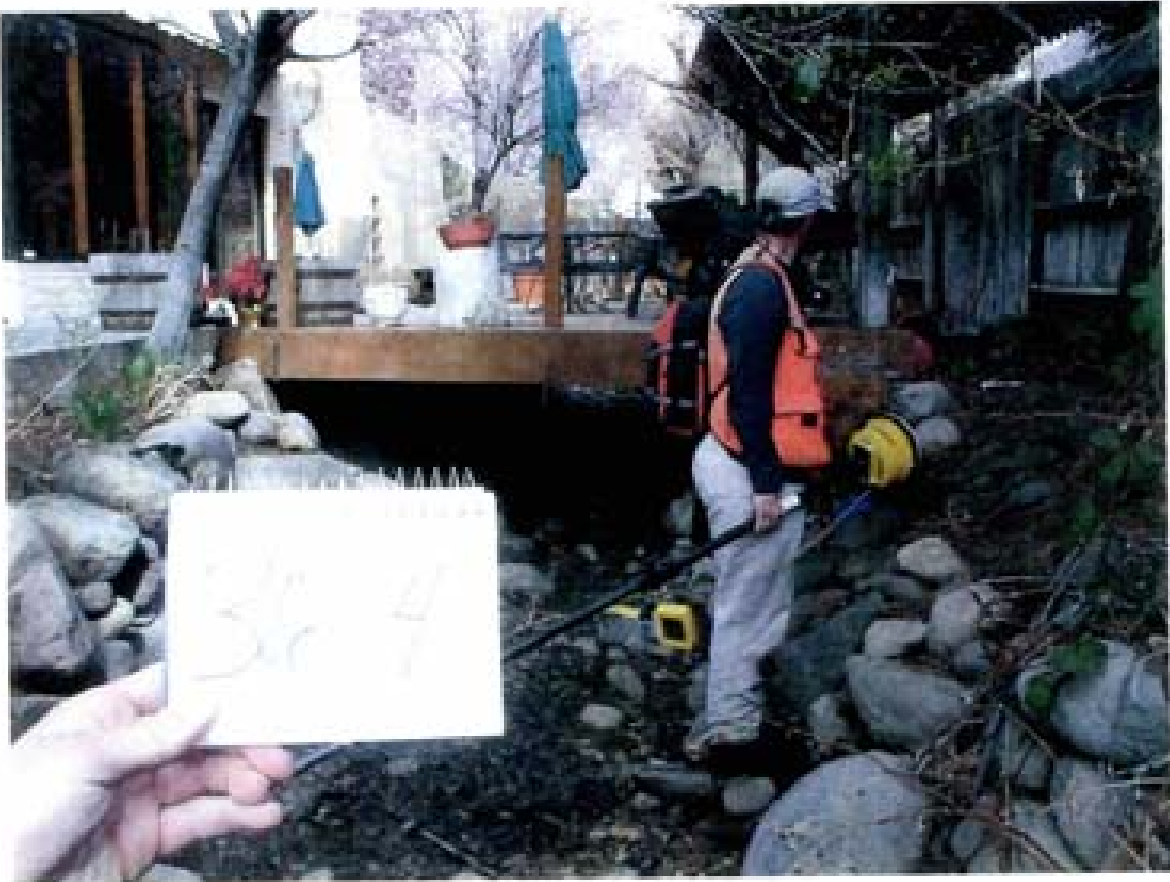
LAKE 3081



LAKE 3082



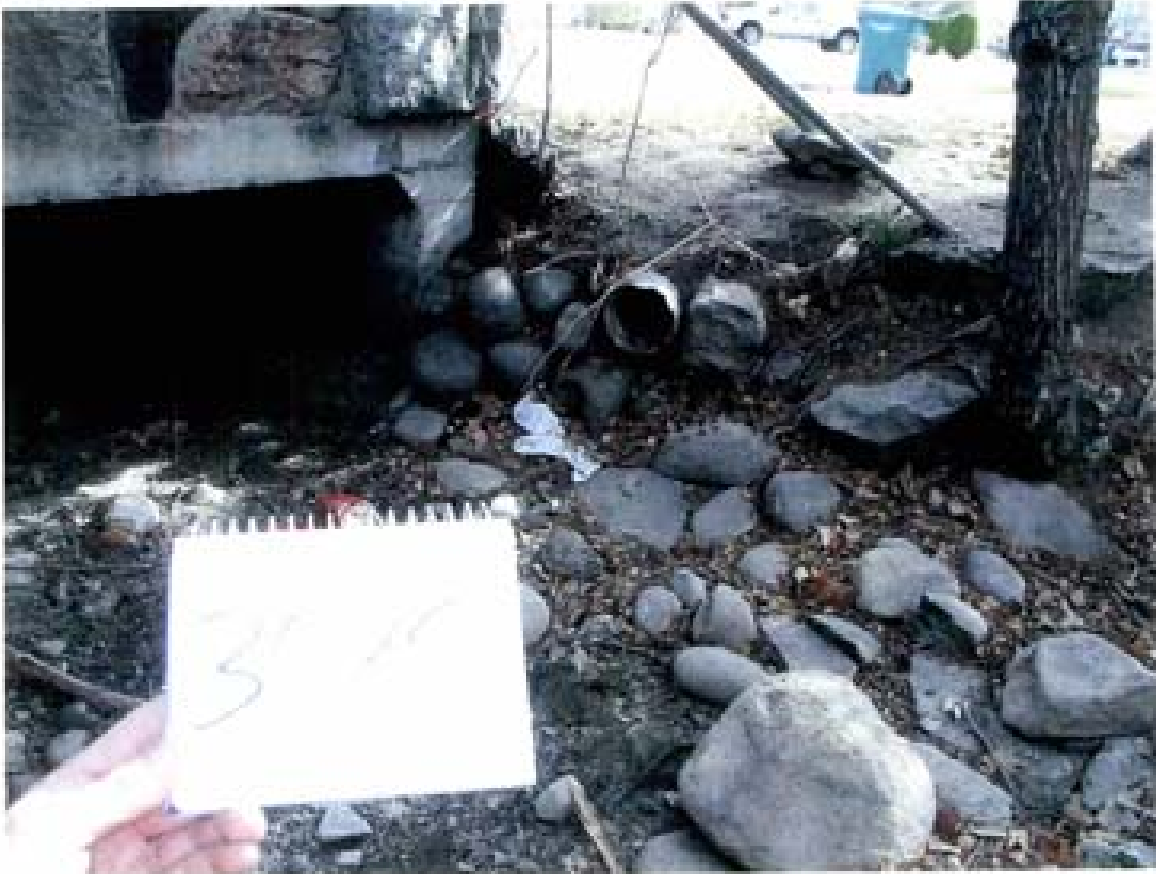
LAKE 3083



LAKE 3084



LAKE 3084B



LAKE 3085



LAKE 3086



LAKE 3087



LAKE 3088



LAKE 3089



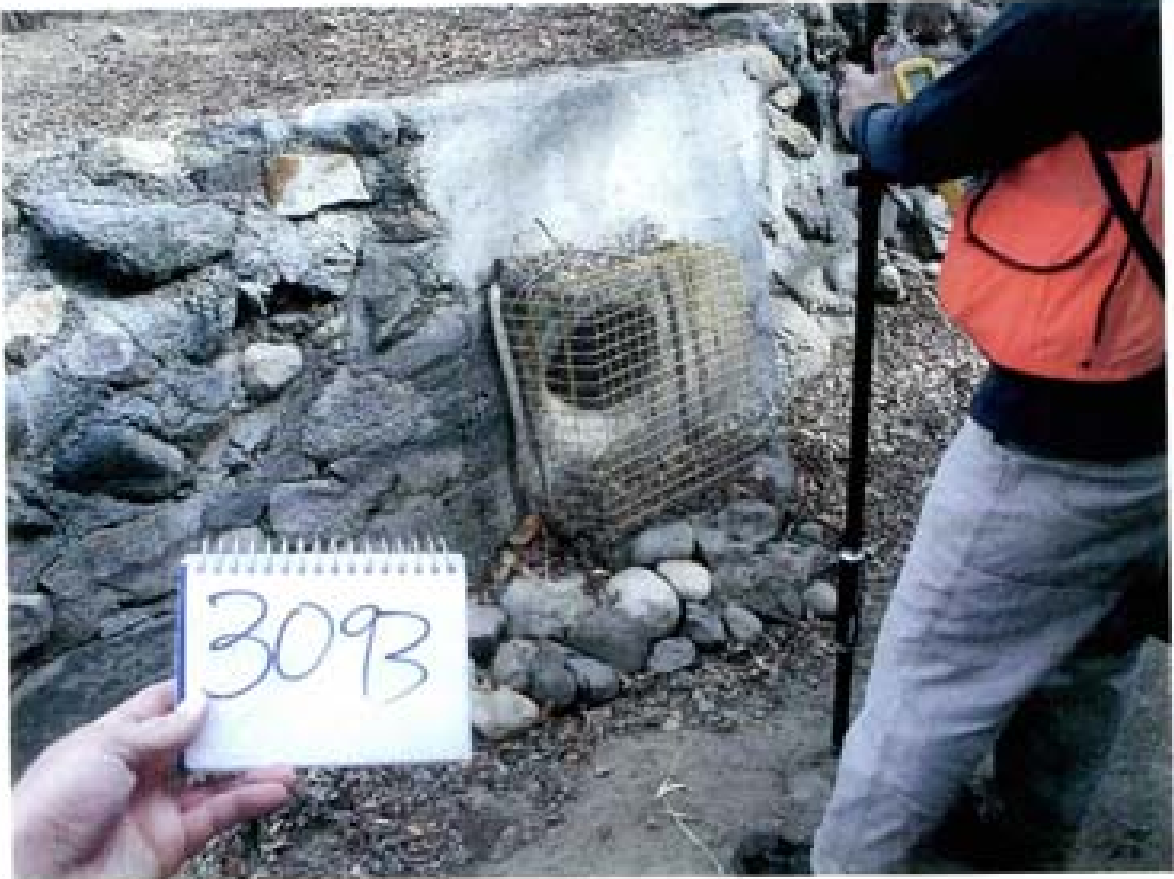
LAKE 3090



LAKE 3092



LAKE 3092B



*Outlet to Park Road*

LAKE 3093



*10/11*

LAKE 3094



*Handwritten note:* 11/15/15 11:00 AM

LAKE 3095



LAKE 3096



LAKE 3097



LAKE 3098



LAKE 3099



LAKE 3101



LAKE 3102



LAKE 3103



LAKE 3104



LAKE 3105



LAKE 3106



LAKE 3107



LAKE 3108



LAKE 3109



LAKE 3110



LAKE 3111



LAKE 3112



LAKE 3113



LAKE 3114



LAKE 3115



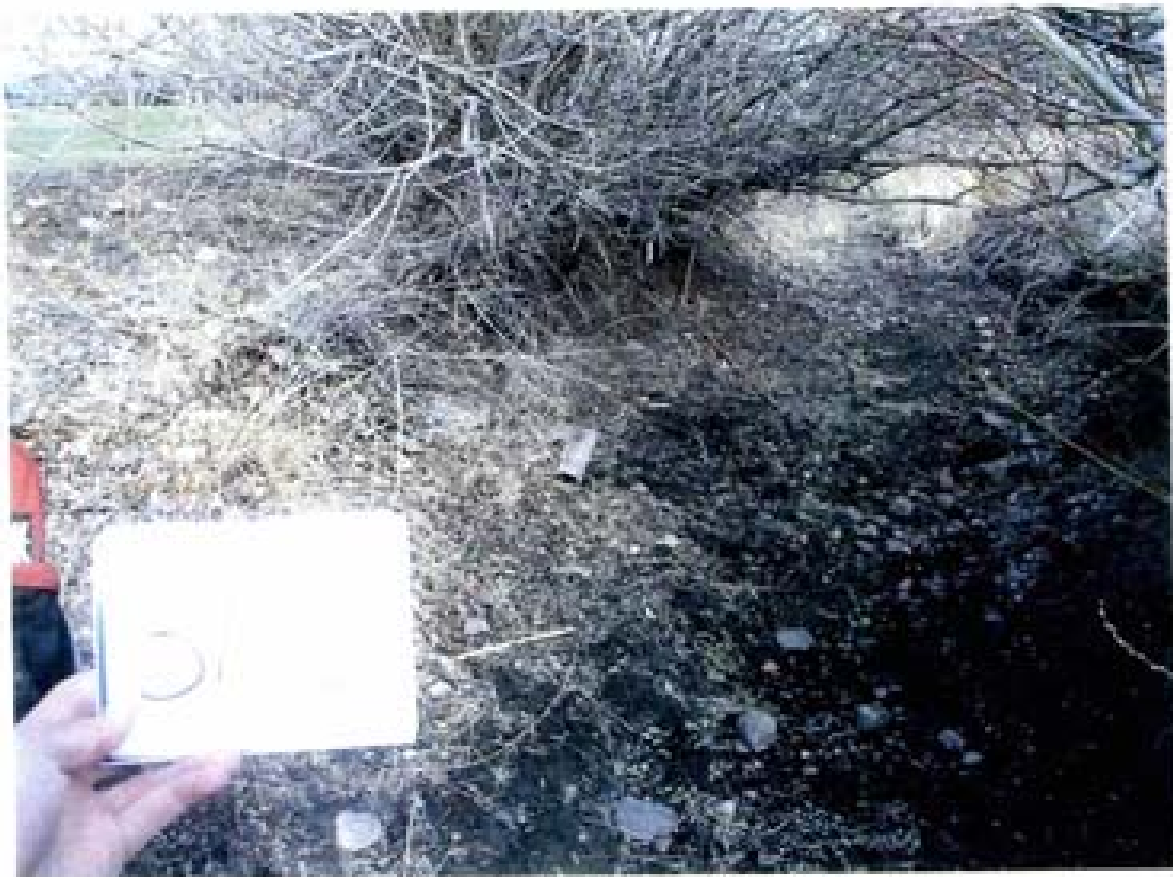
LAKE 3116



LAKE 3116B



LAKE 3117



LAKE 3118



LAKE 3119



LAKE 3120



LAKE 3121



LAKE 3122



LAKE 3123



LAKE 3124



LAKE 3125



LAKE 3126



LAKE 3127



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LAKE 3157



LAKE 3158



LAKE 3159



LAKE 3160



LAKE 3161



LAKE 3161B



LAKE 3162



LAKE 3163



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LAKE 3177



LAKE 3178



LAKE 3179



LAKE 3180



LAKE 3183



LAKE 3184



LAKE 3185



LAKE 3186



LAKE 3187



LAKE 3188



LAKE 3191



LAKE POND1



LAKE 3189



LAKE 3190

POINT DATA

## LAKE DITCH

POINT NO.	NORTHING	EASTING	SHAPE	SIZE	MATERIAL	NUMBER OF BARRELS	HEAD WALL	FES	SLUICE GATE	INLET	OUTLET	ROAD XING	STREAM XING	COMMENTS
3001	14860118.52	2256000.95		10' X 14'	CONC/METAL		X		X	X				START OF DITCH
3002	14860412.61	2256209.71		10' X 3'	CONC/WOOD				X		X			DOUBLE SLUICE GATE FOR SPILLWAY
3003	14860551.93	2256602.04		12' X 3'	CONC				X					GAUGE STATION
3004	14860528.24	2257425.87	BRIDGE	4'	WOOD									TRAIL BRIDGE
3005	14860349.76	2257880.11	CIR	12"	CMP	1		X		X				TRAIL PATH (EROSION)
3006	14860710.91	2258636.18	BRIDGE	4'	WOOD									TRAIL BRIDGE
3007	14860801.96	2258883.98	BRIDGE	12'	WOOD									TRAIL BRIDGE
3008	14860903.60	2259251.79												STREAM @ 38" CMP
3009	14860941.14	2259252.36	CIR	36"	CMP	1			X	X			X	STREAM INLET TO DITCH (OLD)
3010	14861129.91	2259585.49	BRIDGE	4'	WOOD									PRIVATE
3011	14861363.79	2259946.16	BRIDGE	4'	WOOD									PRIVATE
3012	14861385.45	2259961.89		4' X 5'	CONC				X		X			SPILLWAY
3013	14861544.65	2260257.64	BRIDGE	20'	WOOD							X		PRIVATE DRIVEWAY
3014	14861501.71	2260572.52	BRIDGE	25'	WOOD/ASPH							X		(RAINSHADOW LANE) DRAIN W. SIDE RD.
3015	14861501.57	2260878.51	BRIDGE	20'	WOOD							X		PRIVATE DRIVEWAY
3016	14861636.55	2261130.69	BRIDGE	3'	METAL									PRIVATE WALK
3017	14861666.53	2261225.67	BRIDGE	25'	WOOD/BRICK							X		PRIVATE DRIVE
3017B			BRIDGE	3'	WOOD									PRIVATE DRIVE
3018	14861662.38	2261347.97	BRIDGE	3'	WOOD									PRIVATE DRIVE
3019	14861659.85	2261429.03	BRIDGE	30'	WOOD							X		DRIVEWAY
3020	14861660.20	2261466.80			WOOD				X					YARD SWALE
3021	14861692.65	2261776.02			WOOD									YARD/PATIO / TWO WALKS & POND
3022	14861700.50	2262116.03	BRIDGE		WOOD									PRIVATE BRIDGE
3023	14861716.98	2262310.15	BRIDGE	25'	WOOD									PRIVATE
3024	14861727.55	2262415.03	BRIDGE	4'	WOOD									2 PRIVATE BRIDGES & 1 TRAM
3025	14861739.52	2262536.54	BRIDGE		WOOD									PATIO DECK / START 200' ROCKWALL
3026	14861772.06	2262889.51	BRIDGE	4'	WOOD									PRIVATE
3027	14861767.94	2262972.50											X	1/2 CMP STREAM X-ING
3028	14861743.39	2263004.24	BOX	10' X 5'	RCB							X		PRIVATE
3029	14860849.93	2263407.55	CIR	15'	RCP					X				BEGIN CONC. SECTION & SD TO DITCH

POINT NO:		PHOTO NO.	SHAPE	SIZE	MATERIAL	NUMBER OF BARRELS	HEAD-WALL	FES	SLUICE GATE	INLET	OUTLET	ROAD XING	STREAM XING	COMMENTS
3030	14860821.06	2263662.82	SQUASH	24"	CMP	1				X				SD TO DITCH
3031	14860819.37	2263883.23	CIR	12"	CMP	1				X				SD TO DITCH
3032	14860812.73	2264178.06	BOX	15' X 5'	CONC							X		(EDGEWATER)
3033	14860860.28	2264507.76	BRIDGE	2'	WOOD									PRIVATE
3034	14860876.20	2264566.80	CIR	12"	CMP					X				SD TO DITCH
3035	14860887.05	2264717.87	CIR	15"	RCP	1				X				SD TO DITCH END CONC. BEG. ROCK
3036	14860878.82	2264723.37												15" RCP
3037	14860922.19	2264795.05												BRIDGE
3038	14860993.04	2264931.89	BRIDGE	20'	WOOD							X		PRIVATE DRIVE (PIC SAYS 3036)
3039	14860951.64	2264975.22	CIR	12"	CMP					X				SD TO DITCH (PIC SAYS 3037)
3040	14860956.07	2265028.24				2				X				SD TO DITCH AND CROSS
3041	14860966.54	2265197.49	BRIDGE	20'	WOOD							X		PRIVATE
3042	14860969.80	2265238.12	BOX	6' X 4'	RCB		X	X				X		(MCCARRAN) START CONC. SECTION
3043	14860910.83	2265392.91												5X10 BOX MCCARRAN SOUTH
3044	14860856.30	2265510.50	CULVERT		CONC					X				SD TO DITCH - NEEDS MAINTENANCE
3045	14860801.39	2265680.80					X		X				X	FROM CAUGHLIN RANCH PARK <i>Adrian San</i>
3046	14860772.47	2265718.77	BRIDGE	20'	WOOD							X		TRAIL ALONG CREEK
3047	14860769.58	2265763.65												END CONC. SEC. TO GUNITE SEC.
3048	14860809.90	2265976.08	CIR	12"	PVC				X					SD TO DITCH
3049	14860761.27	2266151.18												END GUNITE AND ROCK
3050	14860773.98	2266308.94	BOX	8' X 4'	RCB		X					X		(RIVER RUN)
3051	14860776.61	2266387.82												5X10 @ RD XING
3052	14860763.85	2267044.78			6" METAL				X					GV
3053	14860315.87	2267993.83	BRIDGE	8' X 4'	CONC							X		PRIVATE DRIVE
3054	14860206.23	2268082.23	BOX	8' X 4'	RCB		X					X		(MAYBERRY)
3055	14860192.29	2268075.85								X				SD CATCH BASIN
3056	14860214.92	2268361.34	BOX	8' X 4'	RCB							X		PRIVATE DRIVE
3057	14860461.98	2268734.09			CONC									BEGIN CONCRETE
3058	14860494.89	2268806.82			12" METAL									GV
3059	14860626.07	2269227.75			6" METAL			X						END CONCRETE AND GV
3060	14860728.79	2269492.72	BOX	8' X 4'	RCB			X				X		PRIVATE DRIVE (VERNON)
3061	14860805.76	2269683.82	BRIDGE	4"	WOOD									PRIVATE - BEGIN ROCKWALL SECTION
3062	14860865.55	2269794.17	4 BRIDGE	4"	WOOD									PRIVATE (RACETRACK)
3063	14860887.94	2269924.91			75" CONC									BEG. CONC. SEC W/BRIDGE PRIVATE

POINT NO.		PHOTO NO.	SHAPE	SIZE	MATERIAL	NUMBER OF BARRELS	HEAD-WALL	FES	SLUICE GATE	INLET	OUTLET	ROAD XING	STREAM XING	COMMENTS
3064	14860977.65	2270222.82	BOX	12' X 3'	CONC/RCB		X					X		PRIVATE / 2X15" SD AT (FERRIS LANE)
3065	14860975.06	2270256.95												CB (FERRIS)
3066	14860992.29	2270263.20												15" RCP + BOX (FERRIS)
3067	14861084.03	2270452.02	BRIDGE	100'	CONC/WOOD									CONC. WALL SECTION
3068	14861082.08	2270667.93	CIR	8" RCP		1				X				YARD DRAIN
3069	14861213.72	2271802.15	BOX	8' X 4'	RCB		X				X			(HUNTER LAKE)
3070	14861213.71	2271802.15												BOX E SIDE HUNTER LAKE
3071	14860784.14	2272091.51	CIR	8" PVC						X				YARD DRAIN
3072	14860658.54	2272343.96	BOX	8' X 4'	RCB		X				X			(CLOUGH ROAD)
3073	14860574.08	2272405.02	CIR	6" RCP						X				SD
3074	14860554.42	2272364.46												CB
3075	14860605.33	2272529.35	CIR	8" PVC						X				SD
3076	14860654.79	2272593.21								X			X	STREAM POND ENTRANCE
3077	14860945.72	2272615.52	BRIDGE	20'	WOOD							X		PRIVATE - PIC SAYS (3036)
3078	14861674.42	2273079.91		75'	CONC									CONCRETE SECTION
3079	14862849.19	2273729.45	CIR	12" RCP										SD TO DITCH
3080	14863180.42	2274470.65	BOX	10' X 4'	RCB		X			X		X		(SHARON) 2X8" SD BOTH SIDES (Marsh)
3081	14863065.40	2274699.52		10' X 5'										AT FENCE
3082	14863066.55	2274764.90	PATIO		WOOD									PRIVATE
3083	14863151.65	2274968.30	FENCE		WOOD									PRIVATE
3084	14863226.28	2275118.91	BRIDGE		WOOD/CONC									PRIVATE
3085	14863207.26	2275189.18	CIR	8" CMP						X				SD TO DITCH - BOTH SIDES OF ROAD
3085B			BOX	10' X 4'	RCB									AT MANNER
3086	14862673.98	2275293.99	BOX	10' X 3'	RCB							X		(MONROE) W/ 2 SD'S, BOTH SIDES ROAD
3087	14862625.06	2275287.29	BRIDGE	4'	WOOD					X		X		PRIVATE W/ 2 YARD DRAINS 4" & 2" PLASTIC
3088	14862334.83	2275221.40	WALL		ROCK									ROCKWALL
3089	14862147.08	2275201.34	WALL		CONC					X				CONC. WALL W/ 4 SD INLETS
3090	14862012.74	2275233.85	BOX	8' X 3'	RCB					X		X		(BROWN ST.) W/ 2SD INLETS
3091	14861381.51	2275219.62	BOX	8' X 4'	RCB					X		X		(MT. ROSE) W/ 2SD INLETS, BOTH SIDES
3092	14860851.59	2275504.84			METAL/ROCK									GV & ROCKWALL 15X4" WALL DRAINS
3093	14860759.11	2275470.80	CIR	12" RCP							X			OUTLET
3094	14860699.79	2275415.15	CIR	24" RCP			X							SD TO DITCH
3095	14860433.96	2275028.78	BOX	8' X 3'	RCB		X			X		X		(PLUMB) W/ 2 SD INLET 8", BOTH SIDES
3096	14860022.76	2275332.65	BRIDGE	20'	WOOD							X		PRIVATE DRIVE

POINT NO.		PHOTO NO.	SHAPE	SIZE	MATERIAL	NUMBER OF BARRELS	HEAD-WALL	FES	SLUICE GATE	INLET	OUTLET	ROAD XING	STREAM XING	COMMENTS
3097	14859870.81	2275392.66	BRIDGE	20' / 2"	WOOD/PLSTC					X		X		PRIVATE DRIVE / YARD DRAIN
3098	14859686.29	2275382.82	CIR	15"	RCP	1				X				SD TO DITCH
3099	14859455.39	2275215.37	BOX	12' X 3'	RCB		X					X		(MAPLEWOOD)
3100	14859334.95	2275230.18												BOX @ RD XING
3101	14859117.47	2275390.26	CIR	12"	RCP									SD TO DITCH
3102	14858830.79	2275424.15	BOX	8' X 4'	RCB		X					X		PINERIDGE W/ 2 SD BOTH SIDES RD.
3103	14858678.75	2275392.18	BRIDGE	20'	WOOD							X		PRIVATE DRIVE
3104	14858404.43	2275039.61	BRIDGE	5'	WOOD									PRIVATE WALK
3105	14858245.48	2274942.27	BRIDGE	3'	WOOD									PRIVATE WALK
3106	14858109.08	2274847.14	BRIDGE	4'	WOOD									PRIVATE WALK
3107	14858011.11	2274851.29	CIR	12"	PVC					X				SD TO DITCH
3108	14857994.24	2274870.37											X	STREAM TO DITCH
3109	14858301.76	2275597.60	BRIDGE		STEELWOOD							X		PRIVATE DRIVE
3110	14858185.09	2275537.27	CIR	12"	PVC								X	PASTURE DRAIN OVER
3111	14858215.52	2275845.90		12"	METAL			X						GV
3112	14858271.35	2275749.06		12"	RCP					X				SD TO DITCH
3113	14858482.13	2276056.37	BRIDGE	3'	WOOD									PRIVATE
3114	14858683.18	2276518.32	BRIDGE	25' / 12"	CONC					X		X		PRIVATE DRIVE / SD BOTH SIDES OF RD.
3115	14858683.52	2276524.68												SD TO DITCH
3116	14858204.67	2276723.37	BOX	8' X 4'	RCB		X			X		X		(SKYLINE) 12" SD TO DITCH
3117	14858107.28	2276769.61	CIR	6"	CPP	2				X				GOLF DRAINS
3118	14867943.91	2276802.45	CIR	4"	METAL	1				X				GOLF DRAINS
3119	14867538.69	2276950.09	BRIDGE	12'	WOOD									GOLF CART CROSSING
3120	14857316.34	2277128.94		15"	METAL							X		GV
3121	14857182.38	2277212.23	CIR	8"	RCP	1		X			X			GOLF DRAINS
3122	14857062.40	2277270.93	BRIDGE	12'	WOOD							X		CART X-ING
3123	14856979.67	2277296.44	BRIDGE	4'	WOOD									WALK PATH
3124	14856882.42	2277295.35	BRIDGE	12'	WOOD							X		CART X-ING
3125	14856675.80	2277179.70	BRIDGE	12'	WOOD							X		CART X-ING
3126	14856571.03	2277219.80	BRIDGE	10'	METAL							X		CART X-ING
3127	14856355.01	2277270.89	CIR	4"	METAL					X				GOLF DRAINAGE
3128	14856270.73	2277355.06	BRIDGE	10'	METAL							X		CART X-ING
3129	14856200.53	2277400.27	CIR	4"	METAL					X				GOLF DRAIN
3130	14855902.07	2276507.94	BRIDGE	12'	WOOD							X		CART X-ING
3131	14855826.92	2276664.06	CIR	4"	METAL					X				GOLF DRAIN
3132	14856077.64	2276392.82	CIR	2"	PVC					X				SD FROM SUBDIVISION

POINT NO.		PHOTO NO.	SHAPE	SIZE	MATERIAL	NUMBER OF BARRELS	HEAD-WALL	FES	SLUICE GATE	INLET	OUTLET	ROAD XING	STREAM XING	COMMENTS
3133	14856089.61	2276400.20	CIR							X				SUBDIV. DRAIN BLOWN OUT OF GROUND
3134	14855519.14	2276040.96												SD COVERED
3135	14855347.67	2275855.78	CIR	12"	RCP					X				SD TO DITCH
3136	14855300.44	2275865.52	BRIDGE	10"	METAL									12" SD / BRIDGE
3137	14855271.52	2275898.53	CIR	24"	CMP	2				X				SD'S TO DITCH
3138	14855145.80	2276539.37	BRIDGE	20"	WOOD							X		DRIVE TO MAINTENANCE
3139	14855001.76	2276884.13	CIR	8"	METAL	1					X			DRAIN EAST SIDE
3140	14854808.92	2276918.39	BOX	10'X4'	RCB		X	X				X		(MOANA)
3141	14854787.43	2276915.93		6"	METAL				X		X			GV
3142	14854606.96	2276638.46		6"	METAL			X			X			GV
3143	14854496.36	2276942.87		6"	METAL			X			X			GV
3144	14854325.44	2276960.68	BOX	12'X4'	RCB		X					X		S. OF MOANA (PLUMAS)
3145	14854291.08	2276953.05		6"	METAL				X		X			GV
3146	14853755.52	2276936.55	BOX	12'X4'	RCB		X	X				X		(MEADOWVIEW)
3147	14853723.21	2276838.64	CIR	6"	METAL									CAPPED PIPE
3148	14853518.84	2276945.02	BRIDGE	4'6"	WOOD/PVC									BRIDGE PATH AND PIPE
3149	14853546.85	2276995.75	CIR	6"	PVC									POND DRAIN
3150	14853586.62	2277053.95	BRIDGE	4"	WOOD									PRIVATE PATH TO POND
3151	14853645.62	2277087.04	CIR	8"	CMP					X				SD TO DITCH
3152	14853642.72	2277123.26	BRIDGE	20"	WOOD							X		DRIVE WAY PRIVATE
3153	14853510.96	2277166.73	CIR	2"	PVC				X					POOL DRAIN
3154	14853431.91	2277157.62	CIR	18"12"	CMP/PVC									CROSS OVER DRAIN
3155	14853357.38	2277117.53								X				YARD DRAINAGE
3156	14852528.23	2277339.71												YARD DRAINAGE / BRIDGE PATH
3157	14852455.06	2277318.60		6"					X		X			GV
3158	14852431.37	2277308.94		6"					X		X			GV
3159	14852395.28	2277253.86	CIR	2"	FLEX HOSE					X				HOT WATER TO DITCH
3160	14852229.85	2277190.04	CIR	18"	RCP				X					FIELD DRAINAGE
3161	14852114.00	2277210.78	BOX	10'X4'	RCB		X	X				X		PRIVATE DRIVE
3162	14851902.67	2277192.08	BRIDGE	20'X3'	CONC SLAB							X		N. SIDE BAKERIDGE Mangenita
3163	14851854.83	2277170.90												RETAINING WALL RAILROAD TIES <i>So. of Mangenita</i>

POINT NO.	PHOTO NO.	SHAPE	SIZE	MATERIAL	NUMBER OF BARRELS	HEAD-WALL	FES	SLUICE GATE	INLET	OUTLET	ROAD XING	STREAM XING	COMMENTS
3164	14851711.59	BRIDGE	4'8"	WOOD/CONC									WALK PATHS
3165	14851560.06	BRIDGE	4'	WOOD									WALK PATHS
3166	14851372.89	BRIDGE	72"	SQUASH CMP							X		CART X-ING (PHOTO SAYS 3165)
3167	14851195.21	BRIDGE	72"	SQUASH CMP							X		CART X-ING WITH 3" SD (PHOTO SAYS 3166)
3168	14850651.51	BRIDGE	72"	SQUASH CMP							X		CART X-ING
3169	14850470.89	CIR	12"	CMP				X					SD TO DITCH
3170	14850590.55	BRIDGE	72"	CMP							X		CART X-ING
3171	14850643.43	BRIDGE	72"	CMP							X		2 SD / CART X-ING
3172	14850511.52	BRIDGE	15'X3'	RCB				X			X		(LAKESIDE) CATCH BASINS BOTH SIDES <i>Plumms</i>
3173	14850436.98	CIR	3'5"	PVC	2			X					SD TO DITCH (LAKESIDE) <i>Plumms</i>
3174	14850399.78	CIR	3"	PVC				X					2 YARD DRAINS
3175	14850137.73	CIR	3"	PVC				X					BEG YARD DRAINS
3176	14849886.35	CIR	12"	CMP		X	X				X		SD TO DITCH
3177	14849773.99	CIR	3"	PVC	1								END YARD DRAINS
3178	14849459.90	BOX	15'X4'	RCB				X					(MCCARRAN)
3179	14849153.34	SQUASH	72"	CMP			X				X		72" CMP
3180	14849081.40	CIR	15"	RCP	1			X					SD TO DITCH
3181	14849008.02		72"	CMP									72" CMP LAKESIDE
3182	14849001.05		72"	CMP									72" CMP LAKESIDE
3183	14848999.22		72"	CMP									72" CMP @ LAKESIDE W/ INLET
3184	14848737.70	CIR	6"	METAL				X			X		GV
3185	14848677.21	CIR	12"	METAL				X			X		GV
3186	14848620.51	CIR	6"	METAL/CONC		X		X			X		GV & SLUICE GATE W/ 2 LOG BRIDGES
3187	14848564.39	CIR	6"	METAL/CONC		X		X			X		GV
3188	14848290.22	CIR	6"	METAL				X			X		GV
3189	14847895.62	CIR	12" X 3'	CONC / METAL				X			X		CONCRETE SEC. & GVS
3190	14847760.25	CIR	12"	PVC				X					SD TO DITCH
3191	14847327.37	CIR	15"	METAL				X			X		GV

C.I.P.

CAPITAL IMPROVEMENT PLAN - LAKE DITCH			
5-POINT RATING SYSTEM			
1 = IMMEDIATE ACTION REQUIRED			
5 = NO ACTION NECESSARY			
PAGE 1			
POINT NO.	RATING	COMMENTS	RECOMMENDED ACTION
3004	5	TRAIL BRIDGE	None
3005	3	TRAIL PATH	Rip-rap to flowline
3008	5	TRAIL BRIDGE	None
3007	5	TRAIL BRIDGE	None
3009	5	STREAM INLET TO DITCH	Construct Headwall and rip-rap to flowline
3014	5	(RAINSHADOW LANE) DRAIN W. SIDE RD.	None
3014B	4		Rip-rap to flowline
3017B	5	PRIVATE DRIVE	None
3020	5	YARD SWALE	None
3028	5	PRIVATE	None
3029	5	BEGIN CONC. SECTION & SD TO DITCH	None
3030	4	SD TO DITCH	Cut back pipe to reduce drop
3031	5	SD TO DITCH	None
3032	5	(EDGEWATER)	None
3034	4	SD TO DITCH	Rip-rap to flowline
3035	5	SD TO DITCH END CONC. BEG. ROCK	None
3039	3	SD TO DITCH (PIC SAYS 3037)	Rip-rap to flowline
3040	5	SD TO DITCH AND CROSS	None
3042	5	(MCCARRAN) START CONC. SECTION	None
3044	3	SD TO DITCH - NEEDS MAINTENANCE	Rip-rap from cross drain to back of inlet to ditch. Clean up inlet. Remove tree growing in inlet.
3048	5	SD TO DITCH	
3050	5	(RIVER RUN)	None
3054	5	(MAYBERRY)	None
3055	5	SD CATCH IN KNIGHT	None
3060	5	PRIVATE DRIVE (VERNON)	None
3064	5	PRIVATE / 2X15" SD AT FERRIS LANE	None
3068	3	YARD DRAIN	Construct concrete splash pad in flowline
3069	4	(HUNTER LAKE)	Construct wingwalls or rip-rap
3071	5	YARD DRAIN	None
3072	3	(CLOUGH ROAD)	Construct wingwalls
3073	2	SD	Construct headwall and rip-rap to flowline
3075	2	SD	Construct headwall and rip-rap to flowline
3079	3	SD TO DITCH	Rip-rap to flowline
3080	5	(SHARON) 2X8" SD BOTH SIDES	None
3085	3	SD TO DITCH - BOTH SIDES OF ROAD	Construct splash pad. If inlet is ever improved to a Type 4-R, a headwall may be needed.
3085B		AT MANOR	
3086	5	(MONROE) W/ 2 SD'S, BOTH SIDES ROAD	None
3090	5	(BROWN ST.) W/ 2SD INLETS	None
3091	5	(MT. ROSE) W/ 2SD INLETS, BOTH SIDES	None
3093	5	OUTLET	None
3094	2	SD TO DITCH	Rip-rap to flowline
3095	2	(PLUMB) W/ 2 SD INLET 8", BOTH SIDES	Construct headwall Construct wingwalls or rip-rap
3098	2	SD TO DITCH	Clean and rip-rap to flowline
3099	5	(MAPLEWOOD)	None
3101	1	SD TO DITCH FROM GOLDONDA	Construct Headwall and rip-rap to flowline
3102	5	PINERIDGE W/ 2 SD BOTH SIDES RD.	None
3107	2	SD TO DITCH	Construct headwall
3112	2	SD TO DITCH	Construct headwall
3115	2	BOD @ PRIVATE BRIDGE	Construct headwall and rip-rap to flowline

3116	3	(SKYLINE)12"SD TO DITCH	Construct wingwall with headwall for 12" SD
3121	3	GOLF DRAINS	Construct splash pad
3131	4	GOLF DRAIN	Construct splash pad
3133	3	SUBDIV. DRAIN BLOWN OUT OF GROUND	Rip-rap to flowline
3134	2	SD COVERED ?	Clean and rip-rap to flowline
3135	3	SD TO DITCH	Rip-rap to flowline
3136	5	12" SD	None
3137	1	SD'S TO DITCH ON WASHOE G.C.	Construct headwall and rip-rap to flowline
3139	4	DRAIN EAST SIDE	Rip-rap to flowline
3140	5	(MOANA)	None
3144	5	S. OF MOANA (UNKNOWN)	None
3146	5	(MEADOWVIEW)	None
3147	4	WTF	Rip-rap to flowline
3149	4	POND DRAIN	Rip-rap to flowline
3151	3	SD TO DITCH	Construct Headwall and rip-rap to flowline
3155	2	PRIVATE YARD DRAINAGE	Rip-rap to flowline
3156	4	YARD DRAINAGE	Rip-rap to flowline
3160	3	YARD DRAINAGE	Construct splash pad
3162	4	N. SIDE LAKERIDGE	Construct wingwalls or rip-rap
3169	3	SD TO DITCH	Clean out and rip-rap to flowline
3172	4	LAKESIDE CATCH BASINS BOTH SIDES	Construct wingwalls or rip-rap
3176	3	SD TO DITCH	Construct Headwall and rip-rap to flowline
3177	5	(MCCARRAN)	None
3179	5	LAKERIDGE	None
3180	5	LAKERIDGE	None
3181	5	(LAKESIDE)	None
3183	5	(LAKESIDE) SD INLETS BOTH SIDES	None
3190	2	SD TO DITCH	Rip-rap to flowline



# Ditch Survey

For:

## Cochran Ditch



*Prepared for:*

City of Reno, Public Works Department  
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Reno, Nevada 89505

*Prepared by:*

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December 2, 2003



PHOTOS

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COCHRAN 4200



COCHRAN 4202



COCHRAN 4203



COCHRAN 4204



COCHRAN 4205



COCHRAN 4210



COCHRAN 4224



COCHRAN 4225



COCHRAN 4222



COCHRAN 4223



COCHRAN 4220



COCHRAN 4221



COCHRAN 4228



COCHRAN 4229



COCHRAN 4227



COCHRAN 4227B



COCHRAN 4229B



COCHRAN 4229C



COCHRAN 4230



COCHRAN 4230B

POINT DATA

1



POINT NO.	NORTHING	EASTING	SHAPE	SIZE	MATERIAL	NUMBER OF BARRELS	HEAD-WALL	FES	SLUICE GATE	INLET	OUTLET	ROAD CROSSING	STREAM XING	COMMENTS
4412	14865788.61	2279990.98												MH Cover
4413	14865148.14	2279815.79												Under Sidewalk
4414	14865079.49	2279773.15												Under Sidewalk
4415	14865049.43	2279689.68												Under Sidewalk
4416	14864997.87	2279558.28												Under Sidewalk
4417	14864962.61	2279475.82												MH Cover
4418	14864818.04	2279167.54												MH Cover
4419	14864562.40	2278956.84												(St. Lawrence) Under Road
4420	14864442.93	2278893.31												Under Parking lot
4421	14863922.15	2278790.04												(Taylor) Under Road
4422	14863305.47	2278821.15												(Martin) Under Road

C.I.P.

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CAPITAL IMPROVEMENT PLAN - COCHRAN DITCH			
5-POINT RATING SYSTEM			
1 = IMMEDIATE ACTION REQUIRED			
5 = NO ACTION NECESSARY			
PAGE 1			
POINT NO.	RATING	COMMENTS	RECOMMENDED ACTION
4205	5	Underground	None
4210	3	(Baker Ln) Pipe Ditch open again	Construct headwall
4211	5	(Pecham)	None
4213	4	SD to Ditch	Too overgrown to make assessment. May be priority 5.
4214	4	SD to Ditch	Add splash pad.
4215	4	SD to Ditch	Too overgrown to make assessment. May be priority 5.
4216	5	SD to Ditch	None
4218	3	SD to Ditch/underground S. Side	Rip-rap to flowline
4220	1	SD to Ditch	Construct headwall and rip-rap to flowline
4221	2	SD to Ditch	Construct headwall
4222	2	SD to Ditch	Construct headwall and rip-rap to flowline
4223	5	Underground	None
4224	3	Out of ground here	Construct headwall
4225	5	(Virginia Ln)under grnd past Kietzke	None
4226	5	Break Splits and underground again	None
4227	5	underground break 72" CMP inside	None
4228	2	(DeLuchie)	Construct headwall
4229	4	Sluice box over stream	Rip-rap stream
4230	4	With Grate and then drops in EL.	Rip-rap around inlet

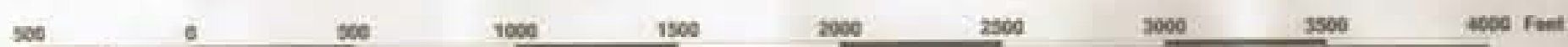


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DITCHES  
COCHRAN DITCH  
LAKE DITCH  
LAST CHANCE DITCH  
STEAMBOAT DITCH  
Roads.shp

CENTRAL









- C:\proj\ditches-data.shp
- DITCHES
- COCHRAN DITCH
- LAKE DITCH
- LAST CHANCE DITCH
- STEAMBOAT DITCH
- Roads.shp



**NORTH**





 proj-ditches-data.shp  
 DITCHES  
 COCHRAN DITCH  
 LAKE DITCH  
 LAST CHANCE DITCH  
 STEAMBOAT DITCH  
 Roads.shp



**SOUTH**