

New York State Department of Environmental Conservation  
Division of Hazardous Waste Remediation  
Bureau of Hazardous Site Control

ADDITIONS/CHANGES TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME: LOVE CANAL DEC I.D. NUMBER 932020

Current Classification 2

Activity: ☐ Add as Class ☒ Reclassify to 4 ☐ Delist Category ☐ Modify ☐

Approvals:

Regional Hazardous Waste Engineer Yes ☒ No ☐

NYSDOH Yes ☒ No ☐

DEE Yes ☒ No ☐

~~Construction Services~~ O&M SECTION Yes ☒ No ☐

BHSC: a. Investigation Section Yes ☒ No ☐

b. Site Control Section Robert J. Marano Date 9/13/94

c. Director E. J. O'Connell Date 9/13/94

DEWR Assistant Director Charles J. Fadda Date 11/9/94

Completion Checklist

Completed By:

Initials Date

OWNER NOTIFICATION LETTER? ☐

ADJACENT PROPERTY OWNER NOTIFICATION LETTER? ☐

ENB/LEGAL NOTICE SENT?  
(For Deletion Only) ☐

COMMENTS SUMMARIZED/PLACE IN REPOSITORY ☐

FINAL NOTIFICATION SENT TO OWNER?  
(For Deletion Only) ☐

(For proposed Class 2a sites only) Planned investigative activities & dates: \_\_\_\_\_

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF HAZARDOUS WASTE REMEDIATION

9/15/94

# REGISTRY SITE CLASSIFICATION DECISION

1. SITE NAME		2. SITE NO	3. TOWN/CITY/VILLAGE	4. COUNTY
Love Canal		932020	Niagara Falls	Niagara
5. REGION	6. CLASSIFICATION			
9	Current 2 Proposed 4 Modify			
7. LOCATION OF SITE (Attach U.S.G.S Topographic Map showing site location)				
a. Quadrangle		b. Site Latitude		c. Tax Map Number
		43 deg. 05' 00"		78 deg. 57' 00"
8. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations)				
<p>The Love Canal was used to dispose of industrial hazardous waste from 1942 to 1954, municipal wastes were also disposed of for one year (1953-54). Over the years, contaminants migrated to nearby streams through the sewers. Migration into homes and exposure of wastes on the surface of the site triggered a declaration of a health emergency in the area and the initiation of remedial work.</p> <p>Cleanup of contaminated streams, sewers and properties around the fenced area has been completed and no further action is necessary. The area within the fence still undergoes operation and &amp; maintenance. A monitoring program is also in place.</p>				
<p>a. Area <u>70</u> acres      b. EPA ID Number <u>NYD000767657</u></p> <p>c. Completed ( )Phase I ( )Phase II ( )PSA (X)RI/FS ( )PA/SI (X)Other</p>				
9. HAZARDOUS WASTES DISPOSED				
<p>Benzoil chloride, benzyl chloride, metalchlorides, miscellaneous acid chlorides, thionyl chlorides, sulfides, liquid sulfides, hexachlorohexane, trichlorophenol, dodecyl mercaptans, chlorobenzenes, chlorotoluenes.</p>				
10. ANALYTICAL DATA AVAILABLE				
<p>a. (X)Air (X)Groundwater (X)Surface Water (X)Soil (X)Waste ( )EPTox ( )TCLP</p> <p>b. Contravention of Standards or Guidance Values</p> <p>"None outside of the containment system"</p>				
11. CONCLUSION				
<p>This proposed reclassification for Love Canal from Class 2 to Class 4 is for the fenced area which consists of operable units 01 and 02. The remedial work at operable units 01 and 02 is complete and long term operation and maintenance (O&amp;M), which includes leachate collection and treatment before disposal, is continuing. Work at the other operable units 03, 04, 05, 06, 09, 11, 14, 15, 18, A9 and B9 has been completed and no further action is necessary. See ATTACHMENT 3 for summary of the remedial activities undertaken at Love Canal's operable units.</p>				
12. SITE IMPACT DATA				
<p>a. Nearest surface water: Distance <u>1500</u> ft.      Direction <u>south</u>      Classification <u>A-Special</u></p> <p>b. Nearest Groundwater: Depth <u>5</u> ft.      Flow Direction <u>to barrier</u>      ( )Sole Source ( )Primary ( )Principal</p> <p>c. Nearest water supply: Distance <u>      </u> ft.      Direction <u>      </u>      Active ( )Yes ( )No</p> <p>d. Nearest building: Distance <u>on site</u> ft.      Direction <u>      </u>      Use <u>      </u></p> <p>e. In State Economic Development Zone?      (X)Y ( )N      i. Controlled site access?      (X)Y ( )N</p> <p>f. Crops or livestock on site?      ( )Y (X)N      j. Exposed hazardous waste?      ( )Y (X)N</p> <p>g. Documented fish or wildlife mortality?      ( )Y (X)N      k. HRS Score <u>      </u></p> <p>h. Impact on special status fish or wildlife resource? ( )Y (X)N      l. For Class 2: Priority Category <u>      </u></p>				
13. SITE OWNER'S NAME		14. ADDRESS		15. TELEPHONE NUMBER
Multiple. Main:		Niagara Falls, NY		(716) 286-3669
Occidental Chem. Corp.				
16. PREPARER: Ben Loredo Revised By: Anthony J. Sylvester			17. APPROVED	
<p><i>Anthony J. Sylvester</i> Signature</p> <p>9/15/94 Date</p> <p>559</p>			<p><i>Charles N. Goddard</i> Signature</p> <p>11/9/94 Date</p>	
<p>Anthony J. Sylvester, SWM 1, Site Control Name, Title, Organization</p>			<p>Charles N. Goddard, Asst. Director, DHWR Name, Title, Organization</p>	

SECTI	SUB	BLOC	LOT	EAST	NORTH	PAN	PANO	ST	DESCRIPTION	WAR	PRO	SUF
	SECTION							SIDE				
161	073	0001	023	40202	112104	97TH ST	703	E	BL D LOT 101	15	5170	
161	073	0001	024	40199	112108	97TH ST	707	E	BL D LOT 102	15	5171	
161	018	0001	033	40181	112114	97TH ST	710	W	TM 491 BL E LT PTS	15	5283	
161	073	0001	025	40199	112112	97TH ST	711	E	TM 491 BL D LOT 1	15	5172	
161	018	0001	032	40181	112119	97TH ST	714	W	TM 491 BL E LT 422	15	5282	
161	073	0001	026	40199	112117	97TH ST	715	E	TM 491 BL D LOT 1	15	5173	
161	018	0001	031	40180	112123	97TH ST	718	W	TM 491 BL E LOT 4	15	5281	
161	073	0001	027	40199	112122	97TH ST	719	E	TM 491 BL D LOT 1	15	5174	
161	018	0001	030	40180	112128	97TH ST	722	W	TM 491 BL E LT 420	15	5280	
161	073	0001	028	40199	112128	97TH ST	725	E	TM 491 BL D LT 106	15	5175	
161	018	0001	029	40180	112132	97TH ST	726	W	TM 491 BL E LT 419	15	5279	
161	073	0001	029	40198	112132	97TH ST	729	E	TM 491 BL D LT 107	15	5176	
161	018	0001	028	40180	112137	97TH ST	730	W	TM 491 BL E LT 418	15	5278	
161	073	0001	030	40198	112137	97TH ST	733	E	TM 491 BL D LOT 1	15	5177	
161	018	0001	027	40180	112141	97TH ST	735	W	TM 491 BL E LT 417	15	5277	
161	073	0001	031	40198	112141	97TH ST	737	E	TM 491 BL D LOT 1	15	5178	
161	018	0001	026	40180	112146	97TH ST	738	W	TM 491 BL E LT 416	15	5276	
161	073	0001	032	40198	112145	97TH ST	741	E	TM 491 BL D LT 110	15	5179	
161	018	0001	025	40180	112150	97TH ST	742	W	TM 491 BL E LT 415	15	5275	
161	073	0001	033	40198	112150	97TH ST	745	E	TM 491 BL D LOT 1	15	5180	
161	018	0001	024	40180	112155	97TH ST	746	W	TM 491 BL E LOT 4	15	5274	
161	073	0001	034	40198	112154	97TH ST	749	E	TM 491 BL D LT 112	15	5181	
161	018	0001	023	40180	112159	97TH ST	750	W	TM 491 BL E LOT 4	15	5273	
161	073	0001	035	40198	112159	97TH ST	753	E	TM 491 BL D LOT 1	15	5182	
161	018	0001	022	40180	112164	97TH ST	754	W	TM 491 BL E LT 412	15	5272	
161	018	0001	021	40180	112168	97TH ST	758	W	TM 491 BL E LT 411	15	5271	
161	073	0001	036	40198	112164	97TH ST	759	E	TM 491 BL D LOT 1	15	5183	
161	018	0001	020	40180	112172	97TH ST	762	W	TM 491 BL E LOT 4	15	5270	
161	073	0001	037	40198	112169	97TH ST	763	E	TM 491 BL D LOT 1	15	5184	
161	018	0001	019	40180	112177	97TH ST	766	W	TM 491 BL E LOT 4	15	5269	
161	073	0001	038	40198	112174	97TH ST	767	E	TM 491 BL D LOT 1	15	5185	
161	018	0001	018	40180	112182	97TH ST	770	W	TM 491 BL E LOT 4	15	5268	
161	073	0001	039	40198	112178	97TH ST	771	E	TM 491 BL D LT 117	15	5186	
161	018	0001	017	40180	112186	97TH ST	774	W	TM 492 BL E LT 407	15	5267	
161	073	0001	001	40198	112183	97TH ST	775	E	TM 491 BL D LT 118	15	5187	
161	018	0001	016	40180	112191	97TH ST	778	W	TM 492 BL E LOT 4	15	5266	
161	065	0001	013	40198	112187	97TH ST	779	E	TM 492 BL D LT 119	15	5188	
161	018	0001	015	40179	112195	97TH ST	782	W	TM 492 BL E LOT 4	15	5265	
161	065	0001	014	40198	112192	97TH ST	783	E	TM 492 BL D LOT 1	15	5189	
161	018	0001	014	40179	112200	97TH ST	786	W	TM 492 BL E LOT 4	15	5264	
161	065	0001	015	40198	112196	97TH ST	787	E	TM 492 BL D LOT 12	15	5190	
161	018	0001	013	40179	112204	97TH ST	790	W	TM 492 BL E LOT 4	15	5263	
161	065	0001	016	40198	112201	97TH ST	791	E	TM 492 BL D LOT 1	15	5191	

SECTI	SUB	BLOC	LOT	EAST	NORTH	PAN	PANO	ST	DESCRIPTION	WAR	PRO	SUF
SECTION								SIDE				
161	014	0003	043	40180	112209	97TH ST	794	W	TM 492 BL E LT 402	15		5262
161	065	0001	017	40198	112205	97TH ST	795	E	TM 492 BL D LT 123	15		5192
161	014	0003	042	40180	112215	97TH ST	798	W	TM 492 BL E LT 401	15		5261
161	065	0001	018	40197	112210	97TH ST	799	E	TM 492 BL D LT 124	15		5193
161	014	0003	041	40179	112221	97TH ST	802	W	TM 492 BL D LOT 3	15		5259
161	014	0003	040	40179	112227	97TH ST	806	W	TM 492 BL D LT 313	15		5258
161	014	0003	039	40179	112233	97TH ST	810	W	TM 492 BL D LOT 3	15		5257
161	014	0003	038	40179	112237	97TH ST	814	W	TM 492 BL D LOT 3	15		5256
161	014	0003	037	40179	112242	97TH ST	818	W	TM 492 BL D LT 310	15		5255
161	014	0003	036	40179	112246	97TH ST	822	W	TM 492 BL D LOT 3	15		5254
161	014	0003	035	40179	112251	97TH ST	826	W	TM 492 BL D LT 308	15		5253
161	014	0003	034	40179	112255	97TH ST	830	W	TM 492 BL D LT 307	15		5252
161	014	0003	033	40179	112260	97TH ST	834	W	TM 492 BL D LOT 3	15		5251
161	014	0003	032	40179	112264	97TH ST	838	W	TM 492 BL D LT 305	15		5250
161	014	0003	031	40179	112269	97TH ST	842	W	TM 492 BL D LOT 3	15		5249
161	014	0003	030	40178	112273	97TH ST	846	W	TM 493 BL D LOT 3	15		5248
161	014	0003	029	40178	112278	97TH ST	850	W	TM 493 BL D LOT 3	15		5247
161	014	0003	028	40178	112283	97TH ST	856	W	TM 493 BL D LT 301	15		5246
161	014	0003	027	40178	112295	97TH ST	902	W	TM 493 BL B LOT 2	15		5245
161	065	0001	002	40197	112295	97TH ST	903	E	TM 493 BL F LT 301	15		5201
161	014	0003	026	40178	112300	97TH ST	906	W	TM 493 BL B LT 222	15		5244
161	065	0001	001	40196	112300	97TH ST	907	E	TM 493 BL F LOT 30	15		5202
161	014	0003	025	40178	112305	97TH ST	910	W	TM 493 BL B LT 221	15		5243
161	057	0001	033	40196	112304	97TH ST	911	E	TM 493 BL F LT 303	15		5203
161	014	0003	024	40178	112309	97TH ST	914	W	TM 493 BL B LT 220	15		5242
161	057	0001	034	40196	112309	97TH ST	915	E	TM 493 BL F LOT 30	15		5204
161	014	0003	023	40178	112313	97TH ST	920	W	TM 493 BL B LT 219	15		5241
161	057	0001	035	40196	112315	97TH ST	921	E	TM 493 BL F LOT N	15		5205
161	014	0003	022	40178	112318	97TH ST	924	W	TM 493 BL B LT 218	15		5240
161	057	0001	036	40196	112320	97TH ST	925	E	TM 493 BL F LT 306	15		5206
161	014	0003	021	40178	112322	97TH ST	928	W	TM 493 BL B LT S P	15		5239
161	057	0001	037	40196	112324	97TH ST	929	E	TM 493 BL F LT 307	15		5207
161	014	0003	020	40178	112326	97TH ST	932	W	TM 493 BL B LOT 2	15		5238
161	057	0001	038	40196	112329	97TH ST	933	E	TM 493 BL F LT 308	15		5208
161	014	0003	019	40178	112331	97TH ST	936	W	TM 493 BL B LOT 2	15		5237
161	057	0001	039	40196	112333	97TH ST	937	E	TM 493 BL F LT 309	15		5209
161	014	0003	018	40178	112336	97TH ST	940	W	TM 493 BL B LOT 2	15		5236
161	057	0001	040	40196	112338	97TH ST	941	E	TM 493 BL F LOT 31	15		5210
161	014	0003	017	40178	112340	97TH ST	944	W	TM 493 BL B LT 213	15		5235
161	057	0001	041	40196	112342	97TH ST	945	E	TM 493 BL F LOT 3	15		5211
161	057	0001	042	40196	112347	97TH ST	949	E	TM 493 BL F LOT 3	15		5212
161	014	0003	016	40178	112345	97TH ST	950	W	TM 493 BL B LT 212	15		5234
161	057	0001	043	40196	112353	97TH ST	953	E	TM 493 BL F LOT 3	15		5213

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SECTION								SIDE				
161	014	0003	015	40177	112349	97TH ST	954	W	TM 493 BL B LOT 2	15		5233
161	057	0001	044	40196	112357	97TH ST	957	E	TM 493 BL F LT 314	15		5214
161	014	0003	014	40177	112355	97TH ST	958	W	TM 493 BL B LT 210	15		5232
161	057	0001	045	40196	112362	97TH ST	961	E	TM 494 BL F LOT 31	15		5215
161	014	0003	013	40177	112361	97TH ST	962	W	TM 494 BL B LT 209	15		5231
161	057	0001	046	40195	112367	97TH ST	965	E	TM 494 BL F LT 316	15		5216
161	014	0003	012	40176	112366	97TH ST	966	W	TM 494 BL B LT 208	15		5230
161	057	0001	047	40195	112372	97TH ST	969	E	TM 494 BL F LT 317	15		5217
161	014	0003	011	40176	112377	97TH ST	972	W	TM 494 BL C LOT 2	15		5229
161	057	0001	048	40195	112377	97TH ST	973	E	TM 494 BL F LOT 31	15		5218
161	014	0003	010	40176	112382	97TH ST	976	W	TM 494 BL C LT 206	15		5228
161	057	0001	049	40195	112382	97TH ST	977	E	TM 494 BL F LOT 3	15		5219
161	057	0001	050	40195	112387	97TH ST	983	E	TM 494 BL F LOT 32	15		5220
161	057	0001	051	40195	112392	97TH ST	987	E	TM 494 BL F LOT 3	15		5221
161	057	0001	052	40195	112397	97TH ST	991	E	TM 494 BL F LT 322	15		5222
161	014	0003	006	40175	112401	97TH ST	994	W	TM 494 BL C LOT 2	15		5224
161	057	0001	053	40195	112401	97TH ST	995	E	TM 494 BL F LOT 3	15		5223
161	014	0003	044	0	0	97TH ST	140616		REGULATOR STATI	15		5262 A
161	057	0001	004	40215	112358	99TH ST		W	TM 502 503 504 LOT	15		2835
161	057	0001	005	40234	112416	99TH ST		W	TM 504 LOT 78 & 7	15		2878
161	073	0001	002	40218	112141	99TH ST		W	TM 500-501 LOT PT	15		2780
161	019	0001	058	40257	112083	99TH ST	385	E	TM 500 LOT 30	15		2900
161	019	0001	057	40256	112088	99TH ST	389	E	TM 500 LOT 29 R1	15		2901
161	019	0001	056	40256	112093	99TH ST	393	E	TM 500 LOT 28	15		2902
161	019	0001	055	40256	112097	99TH ST	397	E	TM 500 LOT 27 R1	15		2903
161	073	0001	022	40236	112092	99TH ST	400	W	TM 500 LT PT 1	15		2800
161	019	0001	054	40256	112102	99TH ST	401	E	TM 500 LOT 26	15		2904
161	073	0001	021	40237	112098	99TH ST	404	W	TM 500 LOT PTS 1	15		2802 A
161	019	0001	053	40256	112106	99TH ST	405	E	TM 500 LT 25	15		2905
161	073	0001	020	40236	112103	99TH ST	408	W	TM 500 LOT PTS 1	15		2802 B
161	019	0001	052	40256	112111	99TH ST	409	E	TM 500 LT 24	15		2906
161	073	0001	019	40236	112107	99TH ST	410	W	TM 500 LT 3 PTS 1 2	15		2803
161	019	0001	051	40256	112115	99TH ST	413	E	TM 500 LT 23	15		2907
161	073	0001	018	40236	112112	99TH ST	414	W	TM 500 LOT 4	15		2804
161	019	0001	050	40256	112120	99TH ST	417	E	TM 500 LOT 22	15		2908
161	073	0001	017	40236	112116	99TH ST	418	W	TM 500 LOT 5	15		2805
161	019	0001	049	40256	112124	99TH ST	421	E	TM 501 LOT 21	15		2909
161	073	0001	016	40236	112120	99TH ST	422	W	TM 500 LOT 6	15		2806
161	073	0001	015	40236	112124	99TH ST	428	W	TM 501 LOT 7	15		2807
161	019	0001	048	40256	112129	99TH ST	429	E	TM 501 LOT 20 R1	15		2910
161	073	0001	014	40236	112128	99TH ST	432	W	TM 501 LOT 8	15		2808
161	073	0001	013	40236	112132	99TH ST	434	W	TM 501 LOT 9 VL 9	15		2809
161	073	0001	012	40236	112136	99TH ST	438	W	TM 501 LOT 10	15		2810

SECTI	SUB	BLOC	LOT	EAST	NORTH	PAN	PANO	ST	DESCRIPTION	WAR	PRO	SUF
SECTION								SIDE				
161	019	0001	047	40256	112133	99TH ST	439	E	TM 501 LOT 19	15	2911	
161	073	0001	011	40236	112141	99TH ST	440	W	TM 501 LOT 11 & S	15	2812	
161	019	0001	046	40256	112138	99TH ST	443	E	TM 501 LOT 18	15	2912	
161	073	0001	010	40235	112147	99TH ST	446	W	TM 501 LOT N.PT 1	15	2813	
161	019	0001	045	40256	112142	99TH ST	447	E	TM 501 LOT 17	15	2913	
161	019	0001	044	40256	112147	99TH ST	451	E	TM 501 LOT 16	15	2914	
161	019	0001	043	40256	112151	99TH ST	455	E	TM 501 LOT 15	15	2915	
161	019	0001	042	40256	112156	99TH ST	459	E	TM 501 LOT 14	15	2916	
161	019	0001	041	40256	112160	99TH ST	463	E	TM 501 LT 13	15	2917	
161	019	0001	040	40256	112165	99TH ST	465	E	TM 501 LOT 12	15	2918	
161	019	0001	039	40256	112169	99TH ST	467	E	TM 501 LOT 11	15	2919	
161	019	0001	038	40256	112174	99TH ST	475	E	TM 501 LOT 10	15	2920	
161	019	0001	037	40255	112178	99TH ST	479	E	TM 501 LOT 9 R1	15	2921	
161	019	0001	001	40256	112183	99TH ST	483	E	TM 501 LOT 8	15	2922	
161	073	0001	003	40236	112184	99TH ST	486	W	TM 501 LOT 22	15	2822	
161	015	0001	046	40256	112187	99TH ST	489	E	TM 501 LOT 7	15	2923	
161	065	0001	012	40235	112188	99TH ST	490	W	TM 501 LOT 23	15	2823	
161	015	0001	045	40256	112191	99TH ST	493	E	TM 501 LOT 6	15	2924	
161	065	0001	011	40235	112192	99TH ST	494	W	TM 501 LOT 24	15	2824	
161	015	0001	044	40256	112195	99TH ST	497	E	TM 501 LT 5	15	2925	
161	065	0001	010	40235	112196	99TH ST	498	W	TM 501 LOT 25	15	2825	
161	065	0001	009	40235	112200	99TH ST	502	W	TM 501 LT 26	15	2826	
161	015	0001	043	40256	112199	99TH ST	503	E	TM 501 LOT 4	15	2926	
161	065	0001	008	40235	112204	99TH ST	506	W	TM 501 LOT 27	15	2827	
161	015	0001	042	40256	112203	99TH ST	507	E	TM 501 LOT 3 R1	15	2927	
161	065	0001	007	40235	112208	99TH ST	510	W	TM 501 LT 28	15	2828	
161	015	0001	041	40255	112208	99TH ST	511	E	TM 501 LOT 2 R1	15	2928	
161	065	0001	006	40235	112212	99TH ST	514	W	TM 501 LT 29	15	2829	
161	015	0001	040	40255	112212	99TH ST	515	E	TM 501 LOT 1	15	2929	
161	065	0001	005	40216	112252	99TH ST	600	W	LT 30 - 46 PTS 60D	15	2830	
161	015	0001	039	40256	112221	99TH ST	603	E	TM 502 LT 70	15	2930	
161	015	0001	038	40256	112226	99TH ST	607	E	TM 502 LT 69	15	2931	
161	015	0001	037	40255	112231	99TH ST	611	E	TM 502 LOT 68 R1	15	2932	
161	015	0001	036	40255	112236	99TH ST	617	E	TM 502 LT 67	15	2933	
161	015	0001	035	40255	112241	99TH ST	623	E	TM 502 LOT 66	15	2934	
161	015	0001	034	40255	112246	99TH ST	627	E	TM 502 LOT 65 R1	15	2935	
161	015	0001	033	40255	112251	99TH ST	633	E	TM 502 LOT 64 R1	15	2936	
161	015	0001	032	40255	112256	99TH ST	637	E	TM 502 LOT 63 R1	15	2937	
161	015	0001	031	40255	112261	99TH ST	643	E	TM 502 LOT 62	15	2938	
161	015	0001	030	40256	112266	99TH ST	647	E	TM 502 LT 61	15	2939	
161	015	0001	029	40256	112271	99TH ST	653	E	TM 502 LT 60	15	2940	
161	015	0001	028	40255	112276	99TH ST	657	E	TM 502 LOT 59 R1	15	2941	
161	015	0001	027	40255	112281	99TH ST	661	E	TM 502 LOT 58 R1	15	2942	

SECTI	SUB	BLOC	LOT	EAST	NORTH	PAN	PANO ST	DESCRIPTION	WAR	PRO	SUF
SECTION							SIDE				
161	015	0001	026	40255	112286	99TH ST	667 E	TM 502 LOT 256 R1	15	2943	
161	015	0001	025	40255	112292	99TH ST	673 E	TM 502 LOT 255	15	2944	
161	015	0001	024	40255	112298	99TH ST	679 E	TM 502 503 LOT 254	15	2945	
161	065	0001	004	40234	112296	99TH ST	680 W	TM 502 LT 49 N PT	15	2849	
161	015	0001	023	40255	112304	99TH ST	683 E	TM 503 LOT 253	15	2946	
161	065	0001	003	40234	112301	99TH ST	684 W	TM 503 LT 50	15	2850	
161	057	0001	032	40234	112305	99TH ST	688 W	TM 503 LOT 51	15	2851	
161	015	0001	022	40255	112310	99TH ST	691 E	TM 503 LOT 252	15	2948	
161	057	0001	031	40235	112309	99TH ST	692 W	TM 503 LT 52	15	2853	
161	057	0001	030	40234	112313	99TH ST	696 W	TM 503 LOT 53	15	2853	
161	015	0001	021	40255	112316	99TH ST	697 E	TM 503 LOT 251	15	2949	
161	057	0001	029	40234	112317	99TH ST	700 W	TM 503 LT 54	15	2854	
161	015	0001	020	40255	112321	99TH ST	703 E	TM 503 LOT 50	15	2950	
161	057	0001	028	40234	112322	99TH ST	704 W	TM 503 LOT 55	15	2855	
161	015	0001	019	40255	112326	99TH ST	709 E	TM 503 LOT 49	15	2951	
161	057	0001	027	40234	112327	99TH ST	710 W	TM 503 LOT 56	15	2856	
161	057	0001	026	40234	112331	99TH ST	714 W	TM 503 LOT 57	15	2857	
161	015	0001	018	40255	112331	99TH ST	715 E	TM 503 LOT 48 R1	15	2952	
161	057	0001	025	40234	112335	99TH ST	718 W	TM 503 LOT 58	15	2858	
161	015	0001	017	40255	112336	99TH ST	719 E	TM 503 LT 47	15	2953	
161	057	0001	024	40234	112339	99TH ST	722 W	TM 503 LOT 59	15	2859	
161	015	0001	016	40255	112341	99TH ST	723 E	TM 503 LOT 46	15	2954	
161	057	0001	023	40234	112343	99TH ST	726 W	TM 503 LOT 60	15	2860	
161	015	0001	015	40255	112346	99TH ST	729 E	TM 503 LOT 45 R1	15	2955	
161	057	0001	022	40234	112347	99TH ST	730 W	TM 503 LOT 61	15	2861	
161	057	0001	021	40234	112351	99TH ST	734 W	TM 503 LOT 62	15	2862	
161	015	0001	014	40255	112351	99TH ST	735 E	TM 503 LOT 44	15	2956	
161	057	0001	020	40234	112355	99TH ST	738 W	TM 503 LOT 63	15	2863	
161	015	0001	013	40255	112356	99TH ST	739 E	TM 503 LOT 43	15	2957	
161	057	0001	019	40234	112358	99TH ST	742 W	TM 503 LOT 64	15	2864	
161	015	0001	012	40255	112361	99TH ST	743 E	TM 503 LOT 42 R1	15	2958	
161	057	0001	018	40234	112362	99TH ST	746 W	TM 503 LT 65	15	2865	
161	015	0001	011	40255	112367	99TH ST	749 E	TM 503 LOT 41	15	2959	
161	057	0001	017	40234	112367	99TH ST	750 W	TM 503 LOT 66	15	2866	
161	015	0001	010	40255	112371	99TH ST	753 E	TM 503 LOT 40 R1	15	2960	
161	057	0001	016	40234	112371	99TH ST	754 W	TM 503 LOT 67 R1	15	2867	
161	057	0001	015	40234	112375	99TH ST	758 W	TM 503 LT 68	15	2868	
161	015	0001	009	40255	112376	99TH ST	759 E	TM 503 LOT 39	15	2961	
161	057	0001	014	40234	112379	99TH ST	762 W	TM 503 LOT 69	15	2869	
161	015	0001	008	40255	112381	99TH ST	763* E	TM 503 LOT 38	15	2962	
161	057	0001	013	40234	112383	99TH ST	766 W	TM 503 LOT 70	15	2870	
161	057	0001	012	40234	112387	99TH ST	770 W	TM 503 LOT 71	15	2871	
161	057	0001	011	40234	112391	99TH ST	774 W	TM 504 LOT 72	15	2872	

SECTI	SUB	BLOC	LOT	EAST	NORTH	PAN	PANO ST	DESCRIPTION	WAR	PRO	SUF
SECTION							SIDE				
161	057	0001	010	40234	112395	99TH ST	778 W	TM 504 LOT 73	15	2873	
161	015	0001	005	39804	112529	99TH ST	781* E	TM 504 LOT 35	15	2965	
161	015	0001	004	40255	112402	99TH ST	785* E	TM 504 LT 34	15	2966	
161	015	0001	003	40255	112407	99TH ST	791* E	TM 504 LOT 33 R1	15	2967	
161	015	0001	002	40255	112412	99TH ST	795* E	TM 504 LOT 32	15	2968	
161	015	0001	001	40255	112417	99TH ST	799* E	TM 504 LOT 31 R1	15	2969	
161	014	0003	004	40172	112409	COLVIN B	9615 S	TM 494 BL C LT 200	15	1350 B	
161	014	0003	005	40178	112409	COLVIN B	9621 S	TM 494 BL C LOT 2	15	1350 A	
161	057	0001	001	40191	112409	COLVIN B	9703 S	TM 494 LOT 326	15	1351 A	
161	057	0001	003	40200	112409	COLVIN B	9705 S	TM 494 LT 324	15	1351 C	
161	057	0001	002	40195	112409	COLVIN B	9707 S	TM 494 LOT 325	15	1351 B	

\* These properties are located in the northeast corner of the Love Canal site. Based on the Master Plan, the Love Canal site boundary will include these properties in the northeast corner after LCARA purchases them.



## ATTACHMENT 1

### LOVE CANAL FENCED AREA DESCRIPTION

Beginning at a point, being the intersection of the southerly boundary of Colvin Boulevard with the westerly boundary of 100th Street; thence westerly along the southerly boundary of Colvin Boulevard, crossing 99th Street and 97th Street, to a point in the division line between the lots fronting on 96th Street on the west and the lots fronting on 97th Street on the east; thence, southerly along the said division line, crossing 96th Street about 555.71 feet to a point; thence easterly 22.34 feet to a point; thence southerly, parallel to 97th Street to the south boundary of Reed Avenue; thence westerly along the southerly boundary of Reed Avenue to the intersection with the easterly boundary of 95th Street; thence southerly along the easterly bounds of 95th Street to its intersection with the northerly bounds of Frontier Avenue; thence easterly along the northerly boundary of Frontier Avenue to its intersection with the westerly bounds of 100th Street; thence northerly along the westerly bounds of 100th Street to the point or place of beginning.



# STATE OF NEW YORK DEPARTMENT OF HEALTH

Center for Environmental Health

2 University Place

Albany, New York 12203-3399

Mark R. Chassin, M.D., M.P.P., M.P.H.  
*Commissioner*

Paula Wilson  
*Executive Deputy Commissioner*

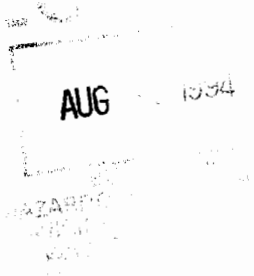
## OFFICE OF PUBLIC HEALTH

Lloyd F. Novick, M.D., M.P.H.  
*Director*

Diana Jones Ritter  
*Executive Deputy Director*

William N. Stasiuk, P.E., Ph.D.  
*Center Director*

August 2, 1994



Mr. Earl Barcomb, P.E., Director  
Bureau of Hazardous Site Control  
NYS Department of Environmental Conservation  
50 Wolf Road, Room 218  
Albany, NY 12233

RE: Registry Site Classification Decision  
Love Canal Site  
Niagara Falls, Niagara County  
Site ID #932020

Dear Mr. Barcomb:

My staff have reviewed the Classification Package for the Love Canal site in Niagara Falls, Niagara County. It is my understanding that operable units 01 and 02 consist of the area within the fence and include the cap, and the leachate collection and treatment system. A long-term operation and maintenance plan is in effect which includes, in part, a long-term groundwater monitoring program to evaluate the effectiveness of the remedial program. I also understand that remediation of operable units 03, 04, 05, 06, 09, 11, 14, 15, 18, A9, and B9 is complete and no further action is necessary. The remediation of these operable units included remediation of creeks and sewers, performing a habitability study, constructing an administration building, remediating lots and maintaining vacant homes. Based on the above, I concur with the reclassification of the Love Canal site from a Class 2 to a Class 4 (site properly closed - requires continued management).

If you have any questions, please contact me or Ms. Dawn Hettrick at (518) 458-6309.

Sincerely,

Allison C. Wakeman  
Chief, Western/Niagara Section  
Bureau of Environmental Exposure  
Investigation

pdk/94181PRO0200

cc: Dr. N. Kim  
Dr. G.A. Carlson  
Mr. C. Amento/Ms. D. Hettrick  
Mr. S. Abrams, DOH Counsel  
Mr. E. Horn, BTSA  
Dr. O. Smith Blackwell, WRO  
Mr. J. Devald, NCHD  
Mr. G. Martin-Leff, DOL



Langdon Marsh  
Commissioner

M E M O R A N D U M

TO: Mr. Robert Marino, Division of Hazardous Waste Remediation, Albany  
FROM: Mr. Peter Buechi, Region 9 *P. Buechi*  
SUBJECT: Love Canal #932020  
DATE: August 10, 1994

The Region has reviewed the site classification decision package for the subject site and concurs with the recommendation to change the classification from Class 2 to Class 4. A signed decision form is attached.

cc: Mr. Daniel King, w/attachments



**FINDINGS STATEMENT**  
**for**  
**Love Canal Area Master Plan**

**Disaster Preparedness Commission**

Pursuant to Article 8 (New York State Environmental Quality Review Act) of the Environmental Conservation Law and 6 NYCRR Part 617, the Disaster Preparedness Commission, as an Involved Agency, makes the following findings:

**Name of Action**

Approval of the Love Canal Area Master Plan which was adopted by the Love Canal Area Revitalization Agency (LCARA) on June 13, 1990.

**Description of the Action**

LCARA has adopted a Master Plan to guide the future use and redevelopment of the approximately 350-acre Love Canal Emergency Declaration Area (EDA). The Master Plan proposes resettlement of areas north and west of the fenced Love Canal site identified by the Commissioner of Health as being suitable for residential use without remediation (Areas 4-7). For areas in the eastern portion of the EDA and not deemed suitable for residential use without remediation (Areas 2 and 3), commercial development is planned. An area south of the LaSalle Expressway (Area 1) would not be developed, but landscaped as a gateway to the City of Niagara Falls.

On May 30, 1990, LCARA adopted and filed a Final Generic Environmental Impact Statement (FGEIS) for the Master Plan. On June 13, 1990, LCARA executed a findings statement for the FGEIS pursuant to the State Environmental Quality Review Act.

Since its creation in 1980, substantial state and federal grants and loans have been provided to LCARA to purchase homes, relocate families, and to prepare for revitalization of the EDA. State oversight of the expenditure of funds by LCARA is provided by the Disaster Preparedness Commission (DPC). Pursuant to a 1980 DPC-LCARA Agreement, the DPC must approve the Master Plan and any commitment of funds in excess of \$25,000 available to LCARA which LCARA proposes to use for a purpose other than meeting scheduled payments on the federal loan.

**Location**

The Love Canal Emergency Declaration Area is an approximately 350-acre parcel located in Niagara County on the eastern edge of the City of Niagara Falls with a portion within the Town of Wheatfield. It is generally bounded on the south by Buffalo

Table 1. Grants and loans provided to the Love Canal Area Revitalization Agency to date.

Agency	Period of Contract	Amount	Total
Division of Housing and Community Renewal (DHCR)	7/31/80 - NA <sup>1</sup>	\$2,500,000 <sup>G</sup> 2,500,000 <sup>L</sup>	\$5,000,000
Federal Emergency Management Agency (FEMA)	10/9/80 - NA <sup>1</sup>	7,500,000 <sup>G</sup> 7,500,000 <sup>L</sup>	15,000,000
Department of Environmental Conservation (DEC)	10/23/87 - 11/30/89	335,000 <sup>G</sup>	335,000
US Environmental Protection Agency (EPA)	5/19/89 - 5/19/90 5/19/90 - 5/19/91	741,204 <sup>G2</sup> 928,859 <sup>G3</sup>	1,670,063
Total grants		12,005,063 <sup>G</sup>	
Total loans		10,000,000 <sup>L</sup>	
			\$21,076,204

<sup>G</sup> Grant

<sup>L</sup> Loan

<sup>1</sup> Contract does not have an expiration date.

<sup>2</sup> The total grant was for \$815,324. The additional \$74,120 was match funding from cash reserves of LCARA.

<sup>3</sup> The total grant request of \$1,021,745 is pending approval of EPA and requires a state match of \$92,886.

Avenue, on the west by 93rd Street, on the north by Black and Bergholtz Creeks and on the east by 103rd Street. The site is about ¼ mile north of the Niagara River.

### Agency Jurisdiction

In 1980, the Love Canal Area Revitalization Agency was established pursuant to General Municipal Law §950 and charged with revitalization of the Love Canal Emergency Declaration Area (EDA). Since 1980, grants and loans from the state and federal government have been provided as shown in Table 1. LCARA was to begin repaying the FEMA loan in 1983. However, to date no payments have been made on the FEMA and DHCR loans.

Oversight of the expenditure of these funds is governed by an agreement between LCARA and the DPC dated October 9, 1980. Paragraph 5 of that agreement provides that:

[t]he Agency [LCARA] accepts all of the State's rights and obligations and the funds provided to the State through the Federal Emergency Management Agency by letter agreement dated October 1, 1980. In the event the Agency has funds and/or credits or other liquid assets over and above the \$15 million Federal funds and the \$5 million State funds, and there is a scheduled payment on the Federal (FEMA) advance due within that calendar year, the Agency shall consult with and obtain the approval of the [DPC] Chairman prior to committing such funds, credits or other liquid assets in excess of \$25,000 to activities of the Agency other than meeting the scheduled payment. In connection with granting such approval, the Chairman shall take into consideration the source of such funds, credits or other liquid assets; the goals, objectives, programs and activities of the Agency; and the interests of the State and Agency in revitalization and stabilization of the Love Canal area in the City of Niagara Falls and the Town of Wheatfield. In no event shall approval be withheld where disapproval would defeat the purposes or intent of any grant or advance by the Federal, State or local government or any other funding entity.

The State is interested in ensuring the restoration of the Emergency Declaration Area consistent with the desires of the local community and assessments of environmental conditions and through the effective and efficient use of state and federal funds.

The DPC is an "involved agency" for SEQR purposes because it has jurisdiction to approve the activities contemplated by LCARA. This jurisdiction derives from DPC's statutory authority under Section 21 of the Executive Law, and is set forth explicitly in the 1980 DPC-LCARA agreement.

This finding is prepared pursuant to 6 NYCRR §617.9, which requires the DPC, as an involved agency, to make a written finding prior to a final decision to approve or disapprove any action that has been the subject of a final generic environmental impact statement.

### **Facts and Conclusions to Support the Decision**

WHEREAS, the Disaster Preparedness Commission (DPC) carefully reviewed the Draft Environmental Impact Statement (DGEIS) and certain DPC member agencies submitted comments to the Love Canal Area Revitalization Agency (LCARA) on or before January 22, 1990;

WHEREAS, on March 14, 1990, the DPC met with LCARA and its consultant, The Saratoga Associates (TSA), to discuss questions posed by LCARA and TSA regarding responses to comments on the DGEIS;

WHEREAS, on April 18, 1990, the DPC submitted comments to LCARA on a Draft Findings Statement for the Master Plan;

WHEREAS, on April 30, 1990, the DPC met with LCARA and TSA to discuss remaining concerns with the Master Plan;

WHEREAS, the FGEIS was received by DPC member agencies on or about June 5, 1990;

WHEREAS, the Master Plan and LCARA's Findings Statement were received by the DPC on or about June 18, 1990; and

WHEREAS, the DPC has reviewed and given careful consideration to the Master Plan, the FGEIS, and LCARA's Findings Statement;

NOW, THEREFORE, the DPC approves the actions set forth in the Love Canal Area Master Plan except those actions set forth in that portion of the Master Plan which proposes commercial development of Areas 2 and 3 of the EDA. Such development would be inconsistent with the best use for this area as identified by the Love Canal Land Use Advisory Committee after extensive public discussion, debate and hearings.

Revitalization of Areas 1 and 4-7 of the EDA which is consistent with these Findings can proceed. However, the DPC will not approve the expenditure of funds which promote commercial development in Areas 2 and 3 for the reasons set forth below.

### **Reasons in Support of Findings in Areas 2 and 3**

The Love Canal Land Use Advisory Committee (LUAC) was appointed by the Chairman of the DPC to assure local input into the development of recommendations on land use for the EDA. By agreement with the EPA, the LUAC's reports together with the Habitability Study carried out by the Technical Review Committee for the Love Canal constituted the habitability and land use study required to be prepared by the EPA pursuant to 42 U.S.C. Section 9661(e) (CERCLA §312).

Thirteen individuals were selected to represent a cross-section of respected leaders and residents in the region. The LUAC was charged to provide recommendations to the DPC and LCARA which would guide LCARA's plans to revitalize and redevelop the EDA. The charge also included assuring full public participation in the development of these recommendations. From November 6, 1988 to June 19, 1989, the Committee met 15 times in public and held two formal hearings to receive public comments. The Committee discussed the public comments at three meetings.

The following is a summary of the Committee recommendations:

#### **I. General recommendations for the entire EDA**

1. Isolate the Love Canal site from the surrounding residential communities in an aesthetically pleasing manner.
2. Continue monitoring of the Love Canal and research on clean up and isolation of Love Canal hazardous waste.
3. Develop and maintain a Public Information and Environmental Education Center at the Love Canal.

One Committee member objected to the visitor's center because "it would perpetuate and glorify the Love Canal."

#### **II. Recommendations for the habitable area**



Revitalize the habitable portions of the EDA for residential use with the following conditions:

1. Before resettlement bring the area back to a viable neighborhood, i.e. upgrade houses, roads, street lights, landscaping, etc.
2. Phase resettlement to avoid flooding the real estate market.
3. Owner-occupation of homes is preferred and current renters should be allowed to stay.
4. Notify potential residents of the history of the Love Canal, the Habitability Study and the habitability decision.
5. Redevelop the former Griffin Manor housing development (Area 6 and 7) for senior citizen housing.
6. Provide financial assistance to remaining homeowners to upgrade the condition of their homes.

Two Committee members did not join in the recommendation for residential resettlement citing doubts about the wisdom of having children living near the Love Canal.

### III. Recommendations for the non-habitable areas

1. "Recognizing economic limitations, nonetheless, every effort should be made to remediate Areas 2 and 3 to a level of habitability comparable to Areas 4-7. This will enable Areas 2 and 3 to be developed for residential use."
2. "If cost prohibits the total remediation required for residential resettlement, Areas 2 and 3 should be developed for light industrial use. In light of the proximity to residential areas, certain appropriate remediation must be carried out under this option. This will provide an opportunity for the City of Niagara Falls and the Town of Wheatfield to benefit from the Free Trade Agreement. Any industrial development of this area should be planned and consider the needs of existing residents."
3. Current residents in Area 1-3 should:
  - a. have the right to remain in their homes if they so choose,
  - b. be eligible for low income loans or grants for property rehabilitation,
  - c. have the opportunity to bid on homes in Area 4-7, if they wish to relocate, and
  - d. receive current market value for their homes.
4. Maintain basic services (e.g. water, sewer, lights, roads) in areas where people continue to reside.
5. Consider uses other than residential for Area 1.

Two Committee members disagreed with the Committee and recommended that Area 2 and 3 be re-zoned to prohibit future residential use, that current renters

and homeowners with minor children be re-located, that homeowners who wish to remain be allowed to do so with the understanding they will be the last residential tenant[s] of the property, and that the area could be developed for light-industrial use.

In LCARA's Findings, eight factors are identified as having "influenced the LCARA Board's decision" to develop Areas 2 and 3 for commercial purposes rather than residential uses as recommended by the LUAC. For the reasons set forth below, these factors do not provide a sufficient rationale for this decision.

Factor 1: The Land Use Advisory Committee's recommendation was for residential use "recognizing economic limitations."

It is evident from the LUAC recommendations for non-habitable areas that economic limitations were to be taken into account only in assessing whether total remediation of those areas was feasible. The LUAC's recommendation for residential use in those areas was otherwise unconditional.

Factor 2: The homes in Areas 2 and 3 are, as a group, older and smaller than homes in the habitable areas.

Factor 3: Homes in Areas 2 and 3 have not been maintained in recent years and are significantly more deteriorated than homes in Areas 4 and 5.

Factor 4: The majority of homes in the EDA are starter homes. This market will be saturated for a number of years as LCARA places homes in the habitable area onto the real estate market.

Factor 5: Marketing of homes in Areas 2 and 3 must await remediation, and [these homes] will continue to deteriorate while this process continues.

These factors are not a sufficient basis for the decision to develop Area 2 and 3 commercially. The general statements about the condition of homes in Areas 2 and 3 in large measure reflect the fact that LCARA has not maintained these properties to the same extent as properties in Areas 4-7. Even if some of the homes could not be salvaged, many could and the vacant property could easily be redeveloped for residential use, as streets and utilities are already present.

Factor 6: The cost of remediation will exceed the present value of the homes in Area 2 and 3.

LCARA's economic assessment of properties in Areas 2 and 3 is incomplete and inaccurate. LCARA has only evaluated properties it currently owns, and the significant number of properties without homes have been assigned zero value. About 20 families in Areas 2 and 3 live in homes that are not owned by LCARA. This is the highest density of remaining residents in the EDA, and the value of these properties has not been considered in LCARA's economic assessment or in the analysis of environmental impacts. Moreover, the LCARA property will still have value whether homes are present or not.

The NYS Department of Environmental Conservation has committed to remediation of Areas 2 and 3, but the state has yet to evaluate its economic feasibility. No conclusion can be reached regarding any economic limitations including the relationship between the cost of remediation and the value of properties in these areas until this evaluation is performed. Moreover, the economic feasibility of remediation does not turn on whether the cost of remediation exceeds the present value of LCARA-owned homes in Areas 2 and 3.

Factor 7: It will be difficult to overcome the stigma of Love Canal for homes in the habitable areas. To market the homes in a non-habitable area will be nearly impossible, even if remediation will be undertaken.

This statement is without factual basis and therefore speculative. LCARA has not demonstrated that the stigma of Love Canal will have a greater effect on the marketability of residential properties than on commercial properties in the EDA.

Factor 8: There is a strong demand for quality "industrial park" land in the Niagara Falls area due to the Free Trade Agreement and other factors.

This is also speculative. The data provided in the FGEIS support a conclusion that development in the area has been strong, but do not provide assurances that the demand will remain strong several years from now when the phased development of Areas 2 and 3 will be implemented. Moreover, in assessing demand for "industrial park" land, LCARA has not adequately considered the overall availability of such land already zoned for commercial/light industrial use both adjacent to the EDA and elsewhere in the Niagara Falls region.

## CERTIFICATION OF FINDINGS TO APPROVE

Having reviewed the Love Canal Area Master Plan and having considered the Final GEIS and the Findings Statement signed by the Love Canal Area Revitalization Agency, this Statement of Findings certifies that with respect to Areas 1 and 4-7 of the Love Canal Emergency Declaration Area:

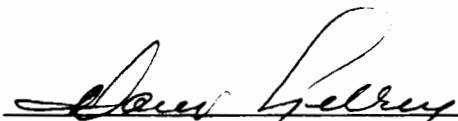
1. the requirements of 6 NYCRR Part 617 have been met;
2. consistent with social, economic and other essential considerations from among the reasonable alternatives thereto, the action to be carried out, funded or approved is one which minimizes or avoids adverse environmental effects to the maximum extent practicable, including the effects disclosed in the relevant environmental impact statement; and
3. consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the environmental impact statement process will be minimized or avoided by incorporating as conditions to the decision those mitigative measures which were identified as practicable.

For the reasons set forth above, no such finding can be issued with respect to Areas 2 and 3 of the Love Canal Emergency Declaration Area.

This decision ensures the revitalization of the Love Canal Emergency Declaration Area consistent with the desires of the local community.

New York State Disaster Preparedness Commission

Name of Agency

  
Signature of Responsible Official

David Axelrod  
Name of Responsible Official

Chairman  
Title of Responsible Official

8/9/90  
Date

Empire State Plaza - Corning Tower Building  
Albany, New York 12237-0001

NEW YORK STATE  
**Disaster Preparedness Commission**

Public Security Building  
State Campus  
Albany, New York 12226-5000

NEW YORK STATE



**DISASTER  
PREPAREDNESS  
COMMISSION**

DEC 02 1992

Dear Mr. Kuehn:

Pursuant to the State Environmental Quality Review Act, the Disaster Preparedness Commission (DPC) has reviewed the additional information prepared by the Love Canal Area Revitalization Agency (LCARA) in response to its May 1991 request for a resolution of the outstanding issues identified by the DPC Findings Statement of August 9, 1990. As part of its deliberations, the DPC gathered public comments on the proposed Findings and, after careful consideration of these comments, unanimously approved the enclosed Supplemental Findings Statement (SFS).

This statement rescinds the DPC's previous disapproval of the actions set forth in the Love Canal Area Master Plan for commercial development of Areas 2 and 3 of the Love Canal Emergency Declaration Area (EDA). LCARA may now proceed with the implementation of the revitalization of these Areas in accordance with the Master Plan, with strict adherence to the Master Plan's commitments to the residents remaining throughout Areas 2 and 3. In addition, the DPC encourages LCARA to pursue the other incentives and accommodations to the remaining residents in these areas identified by the SFS.

With the pace of revitalization in the other areas of the Love Canal EDA accelerating, I look forward to the eventual restoration of Areas 2 and 3 as viable commercial developments as well.

Sincerely,

Thomas C. Jorling  
Vice Chairman

Enclosure

cc: Disaster Preparedness Commission members

Mr. Terry Kuehn  
Acting Chairman  
Love Canal Area Revitalization Agency  
9501 Colvin Boulevard  
Niagara Falls, New York 14304-2809

RWS/td

bcc: Comm. Jorling (2)  
B. Miner  
L. Marsh  
R. Cross  
M. Gallo  
A. DeBarbieri  
M. O'Toole (2)  
C. Goddard  
E. Belmore  
R. Schick  
M. Podd

**SUPPLEMENTAL  
FINDINGS STATEMENT  
for  
Love Canal Area Master Plan**

**Disaster Preparedness Commission**

Pursuant to Article 8 (New York State Environmental Quality Review Act) of the Environmental Conservation Law and 6 NYCRR Part 617, the Disaster Preparedness Commission (DPC), as an Involved Agency, makes the following supplemental findings:

**Name of Action**

Approval of those actions set forth by the Love Canal Area Revitalization Agency (LCARA) in the Love Canal Area Master Plan which addressed the commercial development of Areas 2 and 3 of the Love Canal Emergency Declaration Area (EDA), and which were not approved by the DPC's August 9, 1990 Findings Statement.

**Description of the Action**

On June 13, 1990, LCARA adopted a Master Plan to guide the future use and redevelopment of the approximately 350-acre Love Canal Emergency Declaration Area (EDA). The Master Plan proposed resettlement of areas north and west of the fenced Love Canal site identified by the Commissioner of Health as being suitable for residential use without remediation (Areas 4-7). For areas in the eastern portion of the EDA and not deemed suitable for residential use without remediation (Areas 2 and 3), commercial development was planned. An area south of the LaSalle Expressway (Area 1) would not be developed, but landscaped as a gateway to the City of Niagara Falls.

On August 9, 1990, the DPC issued findings which approved the actions set forth in the Love Canal Area Master Plan, except for those actions described in that portion of the Master Plan which proposed commercial development of Areas 2 and 3 of the EDA. The proposed commercial development of Areas 2 and 3 was found to be inconsistent with the overall recommendations for residential resettlement for this area identified by the Love Canal Land Use Advisory Committee (LUAC) after extensive public discussion, debate and hearings. The LUAC's recommendation, however, was predicated on determining that remedial costs for Areas 2 and 3 would not be prohibitive.

The DPC also found that revitalization of Areas 1 and 4-7 of the EDA which was consistent with the Findings could proceed. However, the DPC would not approve the expenditure of funds which promote commercial development in Areas 2 and 3.

In May 1991 the DPC provided to LCARA cost estimates for the remediation of Areas 2 and 3, requesting that LCARA evaluate the economic feasibility of remediation and respond to the other concerns raised in the 1990 Findings. LCARA responded to the DPC in November 1991, providing additional information relative to the DPC concerns and concluding that the remediation of Areas 2 and 3 was not economically feasible and that no change in the proposed commercial/industrial land use for these areas was warranted.

The DPC has reviewed the recommendations of the LUAC and LCARA's evaluation of the economic feasibility of remediation of Areas 2 and 3. Based upon the information provided, the DPC is issuing these supplemental findings to rescind its' previous disapproval of the actions set forth in the Love Canal Area Master Plan for commercial development of Areas 2 and 3 of the EDA.

### **Location**

The Love Canal Emergency Declaration Area (EDA) is an approximately 350-acre parcel located in Niagara County on the eastern edge of the City of Niagara Falls with a portion within the Town of Wheatfield. It is generally bounded on the south by Buffalo Avenue, on the west by 93rd Street, on the north by Black and Bergholtz Creeks, and on the east by 103rd Street. The site is about 1/4 mile north of the Niagara River.

These Supplemental Findings address only the portion of the EDA identified as Areas 2 and 3. These areas are bordered by Colvin Boulevard to the north, the Love Canal containment area on the west, the LaSalle Expressway to the south, and 103rd street to the east.

### **Agency Jurisdiction**

In 1980, the Love Canal Area Revitalization Agency was established pursuant to General Municipal Law §950 and charged with revitalization of the EDA. Since 1980, grants and loans from the state and federal government have been provided. LCARA was to begin repaying the Federal Emergency Management Agency (FEMA) loan in 1983. However, to date no payments have been made on the FEMA and the NYS Division of Housing and Community Renewal (DHCR) loans.

Oversight of the expenditure of these funds is governed by an agreement between LCARA and the DPC dated October 9, 1980. Paragraph 5 of that agreement provides that:

the Agency [LCARA] accepts all of the State's rights and obligations and the funds provided to the State through the Federal Emergency Management Agency by letter agreement dated October 1, 1980. In the event the Agency has funds and/or credits or other liquid assets over and above the \$15 million Federal funds and the \$5 million State funds, and there is a scheduled payment on the Federal (FEMA) advance due within that calendar year, the Agency shall consult with and obtain the approval of the [DPC] Chairman prior to committing such funds, credits or other liquid assets in excess of \$25,000 to activities of the Agency other than meeting the scheduled payment. In connection with granting such approval, the Chairman shall take into consideration the source of such funds, credits or other liquid assets; the goals, objectives, programs

and activities of the Agency, and the interests of the State and Agency in revitalization and stabilization of the Love Canal area in the City of Niagara Falls and the Town of Wheatfield. In no event shall approval be withheld where disapproval would defeat the purposes or intent of any grant or advance by the Federal, State or local government or any other funding entity.

The State is interested in ensuring the restoration of the EDA consistent with the desires of the local community and assessments of environmental conditions and through the effective and efficient use of state and federal funds.

The DPC is an "involved agency" for SEQR purposes because it has jurisdiction to approve the activities contemplated by LCARA. This jurisdiction derives from DPC's statutory authority under Section 21 of the Executive Law and is set forth explicitly in the 1980 DPC-LCARA agreement.

These supplemental findings are prepared pursuant to 6 NYCRR §617.9, which requires the DPC as an involved agency to make a written finding prior to final decision to approve or disapprove any action that has been the subject of a final generic environmental impact statement.

#### **Facts and Conclusions to Support the Decision**

**WHEREAS**, the DPC issued a findings statement on August 9, 1990 which did not approve the expenditure of funds which promote commercial development in Areas 2 and 3 due to the absence of a sufficient rationale from LCARA for deviating from the recommendation of the Land Use Advisory Committee (LUAC) that these areas remain residential.

**WHEREAS**, the NYSDOH and the NYSDEC undertook a sampling effort in December 1989 which resulted in a report entitled "Love Canal EDA - Final Study Report", released for comment in November 1990, which detailed the remediation necessary to meet the Habitability Criteria in EDA Areas 2 and 3.

**WHEREAS**, the NYSDEC identified scenarios and evaluated costs to achieve the required remediation and presented these in a report entitled "Love Canal EDA - Cost Analysis Report, May 1991".

**WHEREAS**, the DPC on May 13, 1991 transmitted the Final Study Report and Cost Analysis Report to LCARA for review in order to determine the economic feasibility of remediation, respond to concerns raised by the DPC findings and modify the Master Plan and Generic EIS, as appropriate.

**WHEREAS**, the LCARA responded to the DPC in a letter dated November 18, 1991 which has been reviewed and given careful consideration by the DPC.

**NOW, THEREFORE**, the DPC approves the actions set forth in the Love Canal Area Master Plan which propose commercial development of Areas 2 and 3 of the EDA. Having considered the expense associated with remediation of these areas for residential use and the costs to rehabilitate the remaining homes, it has been determined that residential use of these



areas is not economically feasible. On this basis the proposed commercial development of Areas 2 and 3 is not inconsistent with the LUAC recommendations.

Revitalization of Areas 2 and 3 for commercial use may proceed without further remediation and the DPC will approve necessary expenditures towards this end.

In accepting the portions of the Master Plan dealing with Areas 2 and 3 the DPC continues to place great weight on LCARA's commitments to the residents remaining throughout Areas 2 and 3. LCARA should maintain the residential character of the phase three portion of the area during the initial stages of development as well as continue to respect the wishes of those residents in these areas who desire to remain in their current homes. In addition, the DPC encourages LCARA to pursue payment of current market value, rather than 1980 values, for future purchases of homes in Areas 2 and 3. Furthermore, the DPC encourages LCARA to consider further incentives to homeowners in Areas 2 and 3 to promote relocation to the habitable areas.

#### Reasons in Support of Supplemental Findings in Areas 2 and 3

The Findings Statement for the Love Canal Area Master Plan (LCAMP) and Final Generic Environmental Impact Statement (FGEIS), issued by the DPC on August 9, 1990, approved the actions set forth in the LCAMP for Areas 1 and 4-7 but did not issue a positive finding with respect to Areas 2 and 3. In rendering this decision, the DPC found that LCARA, in proposing industrial or commercial development of these areas, had not provided a sufficient rationale for deviating from the LUAC recommendations that these areas remain residential.

In December 1989, the NYSDEC and NYSDOH initiated a sampling program in Areas 2 and 3 to better define the degree of remediation necessary to comply with the criteria of the Habitability Decision. The results of this study were reported in a November 1990 document entitled "Love Canal Emergency Declaration Area Remediation of EDA 2 and 3 - Final Study Report". This report concluded that, in order to meet the criteria for a habitable area, six inches of soil from the entire surface of Areas 2 and 3 would have to be removed and replaced with clean soil. Utilizing this remedial goal, the NYSDEC identified methods of achieving the desired remediation and analyzed the costs to implement the remediation under several scenarios. This resulted in a document entitled "Love Canal EDA 2 and 3 Cost Analysis Report". In a letter dated May 13, 1991 the DPC provided copies of these reports to LCARA.

These reports provided LCARA with information regarding the cost to remediate Areas 2 and 3 for residential use to allow an evaluation of the economic feasibility of remediation. The DPC, by a May 13, 1991 letter, requested LCARA utilize these documents and other available information and experience to address the issues raised by the Findings and modify the FGEIS and LCAMP if appropriate.

LCARA's evaluation in response to this request was submitted to the DPC on November 18, 1991 and is the subject of this Supplemental Findings Statement. LCARA concluded, after reviewing each of the points raised by the DPC's August 9, 1990 findings statement, that residential use of Areas 2 and 3 was not economically feasible based upon the cost to

remediate, the expense of rehabilitation of the homes and the difficulties LCARA was experiencing in marketing the homes in the habitable areas of the EDA. LCARA therefore concluded that revisions to the LCAMP and FGEIS were not necessary and that its recommendation for commercial/industrial development remained unchanged.

The analysis presented by LCARA concluded that given the cost to accomplish the remediation and the cost to rehabilitate the existing homes, an investment of over fifteen million dollars with an anticipated return of five million dollars from the sale of the homes, it is not economically feasible to revitalize these areas for residential use. Since LCARA has identified substantial economic limitations on remediating these areas, and "economic limitations..." was the test identified by LUAC for determining whether residential or commercial development was the appropriate land use for Areas 2 and 3, LCARA's determination to proceed with commercial/industrial development is consistent with the LUAC recommendations.

In evaluating LCARA's selection of commercial/industrial development as the proposed land use for Areas 2 and 3, the DPC has also considered LUAC's recommendation that there be "appropriate remediation". The Habitability Decision stated, "... the [non-habitable] areas are not suitable for normal residential use without remediation of the contaminated soil. ... However, these areas may be used for other purposes (commercial, industrial) without remediation.". In addition, the Love Canal EDA - Final Study Report stated that the remediation needed for residential use, is not required to permit commercial or industrial use. Based upon these two reports, the DPC has concluded that further remedial work in these areas is not necessary. As in any other area of the State, existing regulations and standard practices which will govern any development in Areas 2 and 3 (SEQRA reviews, local building permits, lender-required environmental audits) will provide ample opportunity to identify any small areas of contamination warranting further remedial work when reviewing specific development proposals.

The current LCARA sales policy for homes in the habitable areas of the EDA requires that a package of documents be provided to prospective buyers which details the history of remedial activities undertaken at the site and the results of the habitability study. This policy shall be extended to any property transactions in the Areas 2 and 3 and remain in effect for all future transactions. Mechanisms for providing record notice to future purchasers of properties, now in place for Areas 4-7, shall also be utilized for Areas 2 and 3. Therefore, the imposition of further "appropriate remediation" upon unknown development activities is not required.

The LCARA response to the August 9, 1990 Findings Statement provided additional information to address the eight specified deficiencies in the rationale previously provided by LCARA. Having reviewed this new information, the DPC finds that the inadequacies previously identified have been addressed as follows:

**Factor 1:** The Land Use Advisory Committee's recommendation was for residential use "recognizing economic limitations."

The LUAC recommendations were that "recognizing economic limitation, nonetheless every effort should be made to remediate Areas 2 and 3". But, "(i)f cost prohibits the total remediation required for residential resettlement,

Areas 2 and 3 should be developed for light industrial use." In 1990 the DPC found that until an evaluation of the relationship between the cost of remediation and the value of the properties was performed, no conclusion could be reached regarding any economic limitations.

In response to the need identified by the DPC for an economic analysis of the feasibility of remediation, the NYSDOH analyzed alternatives for the remediation of Areas 2 and 3 which were presented in the "Love Canal EDA 2 and 3 -Final Study Report". The results of this evaluation were utilized to develop scenarios and estimate costs to implement the remediation in Areas 2 and 3, which were presented in the NYSDEC "Love Canal EDA 2 and 3 Cost Analysis Report". These reports were provided to LCARA by the DPC for its use. LCARA's response was set forth in a letter dated November 18, 1991. LCARA's response has satisfactorily considered the economic feasibility of the remediation of Areas 2 and 3. LCARA has shown that an expenditure of approximately \$9 million for remediation followed by over \$6 million in rehabilitation costs, would not be justified by the probable return of less than \$5 million which could expect to result from the sale of the homes in Areas 2 and 3.

**Factor 2:** The homes in Areas 2 and 3 are, as a group, older and smaller than homes in the habitable areas.

**Factor 3:** Homes in Area 2 and 3 have not been maintained in recent years and are significantly more deteriorated than homes in Areas 4 and 5.

**Factor 4:** The majority of homes in the EDA are starter homes. This market will be saturated for a number of years as LCARA places homes in the habitable area onto the real estate market.

**Factor 5:** Marketing of homes in Areas 2 and 3 must await remediation, and [these homes] will continue to deteriorate while this process continues.

While, as stated in the original findings, factors 2-5 in and of themselves do not provide sufficient basis for the decision to develop Areas 2 and 3 commercially, they do represent the current status of the existing homes. Since 1990 the condition of the homes has further deteriorated. Given the time needed to effect remediation and then market these homes, several additional years are likely to pass before rehabilitation begins. The evaluation presented by LCARA shows that today only a handful of homes could be expected to have any return after rehabilitation. As demonstrated by one of the options evaluated in the Cost Analysis Report, razing all vacant homes and starting with new development results in a \$13 million remediation cost, even a greater investment than remediation and rehabilitation of the homes in their current condition (estimated at \$9 million).

**Factor 6:** The cost of remediation will exceed the present value of the homes in Area 2 and 3.

This statement was clearly supported by the Cost Analysis Report (CAR) and the economic analysis presented in the LCARA November 18, 1991 response.

**Factor 7:** It will be difficult to overcome the stigma of Love Canal for homes in the habitable areas. To market the homes in a non-habitable area will be nearly impossible even if remediation will be undertaken.

The difficulty of marketing these homes is now evident from the unwillingness of mortgage lenders and insurers to provide mortgages even in those areas where no remediation was necessary. While recent actions by the Federal Government to provide mortgage insurance are expected to boost sales, the actual impact of these actions is unknown at this time. In addition, there has been no commitment that these decisions will be extended to areas 2 and 3.

**Factor 8:** There is a strong demand for quality "industrial park" land in the Niagara Falls area due to the Free Trade Agreement and other factors.

An analysis provided by LCARA of sales of commercial property in the area indicated that sales of land in established industrial parks generally resulted in higher prices per acre than non-industrial park acreage and that sales, in non-recessionary times, could be expected at the levels predicted by LCARA.

## CERTIFICATION OF FINDINGS TO APPROVE

Having reviewed the Love Canal Area Master Plan and having considered the Final GEIS, the Findings Statement signed by the Love Canal Area Revitalization Agency (LCARA) and the information provided by LCARA's November 18, 1991 letter, this Statement of Findings certifies that with respect to Areas 2 and 3 of the Love Canal Emergency Declaration Area:

1. the requirements of 6 NYCRR Part 617 have been met;
2. consistent with social, economic and other essential considerations from among the reasonable alternatives thereto, the action to be carried out, funded or approved is one which minimizes or avoids adverse environmental effects to the maximum extent practicable, including the effects disclosed in the relevant environmental impact statement; and
3. consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the environmental impact statement process will be minimized or avoided by incorporating as conditions to the decision those mitigative measures which were identified as practicable.

This decision ensures the revitalization of the Love Canal Emergency Declaration Area consistent with the requirements of the Love Canal Habitability Decision and the recommendations of the Love Canal Land Use Advisory Committee.

### New York State Disaster Preparedness Commission

Name of Agency

Signature of Responsible Official

Thomas C. Jorling

Name of Responsible Official

Acting Chairman

DEC 02 1992

Title of Responsible Official

Date

50 Wolf Road - Room 222  
Albany, New York 12233-7010

Record of Decision  
Remedial Alternative Selection

Site: Love Canal, Niagara Falls, New York

Analyses Reviewed:

I am basing my decision primarily on the following documents which describe the analysis of cost-effectiveness consistent with the National Contingency Plan for evaluating remedial alternatives and which provide relevant background information.

- o Love Canal Sewer and Creek Remedial Alternatives Evaluation and Risk Assessment CH2M - Hill, March 1985
- o Responsiveness Summary, March 1985
- o Environmental Information Document-Site Investigation and Remedial Action Alternatives at Love Canal, Malcolm Pirnie, Inc., October 1983
- o Environmental Monitoring at Love Canal, USEPA, May 1982
- o Habitability of the Love Canal Area - A Technical Memorandum, OTA, June 1983
- o Responsiveness Summary prepared by NYSDEC - June 1984
- o Staff summaries and recommendations
- o Documentation provided by New York State

Description of Selected Option:

Five areas have been defined for remediation under this recommended action. Specifically:

1. North Storm and Sanitary Sewers - hydraulically clean designated sewers, remove and dispose of contaminated sediments and inspect specific sewer reaches for defects that could act as pathways for contaminant migration. Waste will be stored within the Love Canal containment system.
2. Black and Bergholtz Creeks - limit access, dredge designated portions of the creeks, and hydraulically clean Black Creek culverts. Waste will be stored within the Love Canal containment system.
3. South Storm and Sanitary Sewer - hydraulically clean designated sewers, remove and dispose of contaminated sediments and inspect specific sewer reaches for defects, and repair damaged flood gate. Waste will be stored within the Love Canal containment system.

4. 102nd Street Outfall - (if found consistent with the 102nd Street Superfund Site project plan) perform temporary in-situ stabilization of the contaminated sediment via the erection of a berm until issues concerning the source of contamination from 102nd Street Landfill are resolved.
5. West Storm and Sanitary Sewers - hydraulically clean designated sewers, remove and dispose of contaminated sediments, inspect specific sewer reaches for defects, and investigate further downstream areas. Waste will be stored within the Love Canal containment system.

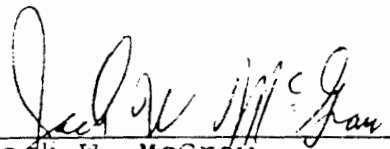
In addition, the installation of a permanent administration building is being recommended on-site.

Consistent with the Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA), and the National Contingency Plan (40 CFR part 300), I have determined that the remediation of the Love Canal sewers and creeks and the construction of a temporary berm in the Niagara River adjacent to the 102<sup>nd</sup> Street outfall is a cost-effective remedy and provides adequate protection of public health, welfare, and the environment. The State of New York has been consulted and agrees with the approved remedy.

I have also determined that the action being taken is appropriate when balanced against the availability of Trust Fund monies for use at other sites. In addition, the interim storage of contaminated sediments is more cost-effective than other remedial actions and is necessary to protect public health, welfare or the environment.

I have also determined that a need exists for the construction of a permanent administration building. This action is cost-effective and in the best interest of the health and safety of site workers.

5/6/85  
Date

  
\_\_\_\_\_  
Jack W. McGraw  
Acting Assistant Administrator  
Office of Solid Waste and  
Emergency Response

## DECLARATION FOR THE RECORD OF DECISION

### SITE NAME AND LOCATION

Love Canal, City of Niagara Falls, Niagara County, New York

### STATEMENT OF PURPOSE

This decision document represents the selected remedial action for the final destruction/disposal of Love Canal dioxin-contaminated sewer and creek sediments, developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC §9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, and to the extent practicable, the National Oil and Hazardous Substance Pollution Contingency Plan, 40 CFR Part 300.

### STATEMENT OF BASIS

This decision is based on the administrative record for the Love Canal site. The attached index identifies the items that comprise the administrative record, upon which the selection of a remedial action is based. A copy of the administrative record is located at the New York Department of Environmental Conservation (NYDEC) Love Canal Public Information Office (9820 Colvin Boulevard, Niagara Falls, NY) and at the Regional office (26 Federal Plaza, New York, New York).

### DESCRIPTION OF SELECTED REMEDY

This Record of Decision for the Love Canal site calls for the following actions that address the destruction/disposal of dioxin-contaminated sewer and creek sediments. The following actions represent only a portion of the remediation that is on-going or proposed for the Love Canal site.

- ° The sewer and creek sediments will be thermally treated at the Love Canal site. The wastes will be treated with a transportable thermal destruction unit (TTDU), so that mobilization and demobilization can be readily accomplished. Six nines (99.9999%) destruction and removal efficiency will be the performance standard.
- ° The TTDU will treat all creek and sewer sediments placed in the dewatering/containment facility (DCF) (to be constructed), as well as residuals stored on-site from the



operation of the on-site leachate treatment facility, and other associated material generated as a result of remediation (e.g., haul roads.)

- Materials not requiring thermal treatment (e.g., uncontaminated debris from excavated Ring II homes) will be placed in a separate construction/demolition debris facility (CDDF), which will be a compartment within the DCF.
- After determination that the residuals from the thermal destruction process are non-hazardous, they will be disposed on site in selective areas, so as not to impinge on the integrity of the existing cap over Love Canal.
- Upon completion of thermal treatment, the dewatering/containment facility (DCF) will be scaled down to accommodate the construction/demolition debris only.

#### DECLARATIONS

The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable, or relevant and appropriate, and is cost-effective. This remedy satisfies the statutory preference for remedies that employ treatment which permanently and significantly reduces the toxicity, mobility or volume of hazardous substances as their principal element. Finally, this remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

The State of New York has been consulted and agrees with the approved remedy.

10/26/87  
Date

J. Winston Porter  
J. Winston Porter,  
Assistant Administrator  
Office of Solid Waste and  
Emergency Response

### ATTACHMENT 3

#### OPERABLE

#### UNIT NO.    DESCRIPTION

#### 01                    SITE CONT/LEACHATE COLLECTION AND TREATMENT

In October 1978, work began on the Love Canal Leachate Collection System which consisted of about 7,130 ft. of leachate collection pipe and about 860 ft. of gravity drain pipe around the Canal. The pipe was placed in a trench ranging in depth from 11 to 21 feet below original grade. It was designed to intercept and collect contaminated groundwater from the waste site before it can move off-site. This collection system was completed in November 1978.

To process the collected leachate, an on-site leachate treatment facility was built. Construction of the facility started in September 1979 and was designed to treat leachate pumped from the collection system. The raw leachate goes through a process of clarification, pressurized bag filtration and activated carbon adsorption before it is discharged to the City of Niagara Falls sewerage system in compliance with the sewer use ordinance. The facility entered operations in December 1979.

#### 02                    SITE/CONT. CAP EXT.

As part of the containment activities conducted at the Love Canal site, the entire landfill was covered with a 22 acre cap which consisted of a minimum of three feet of well compacted clay. The cap prevented human contact with the wastes as well as migration of volatiles and fugitive dust from the landfill's surface. Placement of the clay cap was completed in July 1980. In October 1981, design work began on a program to upgrade the cap to include a synthetic membrane and expanding the cap to over 40 acres. In November 1984, the work was complete, the plastic liner was in place, covered with 18 inches of fill and seeded to provide vegetative cover.

#### 03                    CREEKS

The Black and Bergholtz Creeks are located at the northern boundary of the Love Canal Emergency Declaration Area (EDA). A study performed in 1983 identified Love Canal type contaminants in the sediments of both Black and Bergholtz Creeks. In May 1985, the USEPA issued a Record of Decision which called for the remediation of Black and Bergholtz Creeks and the storm and sanitary sewers. In October 1987, USEPA signed a ROD providing for the on-site thermal destruction of contaminated sewer and creek sediments using a transportable thermal destruction unit. The Creeks remediation began in May 1988. Creek bed material was excavated and transported to Occidental Chemical Corporation in Niagara Falls. The Creeks bed was replaced with clean fill material and the normal creek flows were then restored. The remedial work was completed in December 1989 and final restoration in June 1990.

04

#### SEWER CLEANING

In May 1985, the USEPA signed a ROD which provided for the remediation of Black and Bergholtz Creeks and the storm and sanitary sewers. The NYSDEC procured a contractor to clean over 60,000 linear feet of storm and sanitary sewers which drained from the Love Canal site or might have been contaminated by drainage from the Love Canal site. Contaminated sediments were removed from the storm and sanitary sewers by hydraulic cleaning. The sewers were then inspected by remote television cameras to ensure that contaminated sediments were removed. Sediment and debris removed from the sewers were dewatered and stored at the Love Canal site. Sediments were removed from the site by Occidental Chemical Corp. to their Niagara Falls main plant. Clean-up work was completed in August 1986.

05

#### FRONTIER AVENUE SEWER

Construction work at the Frontier Avenue storm sewer south of the Love Canal began in April 1987. Work included abandoning and plugging of the existing storm sewer to prevent migration of chemical wastes from the Love Canal site. A new sewer line was added to collect surface runoff from the area.

## OPERABLE

### UNIT NO.    DESCRIPTION

#### 06            ADDITIONAL SEWERS

Confirmatory testing done in October 1986 indicated additional contaminated sanitary sewers along Frontier Avenue, between 81st and 75th Streets. An analysis of sediment samples indicated concentrations of dioxin in excess of 600 parts per billion (ppb). Clean up work was completed in November 1987.

#### 09            HABITABILITY STUDY

The Habitability Study was conducted to judge the suitability of the EDA for human habitation. As part of this study, a set of habitability criteria was developed and recommended by an expert panel of independent scientists, pilot tested in 1986-87, modified by the Technical Review Committee after public review, and adopted by responsible state and federal agencies. Then a data set from the site was collected and evaluated to satisfy the requirements of the criteria. The results of the study were presented to the Commissioner of Health for New York State for use in the determination of habitability of the EDA. In September 1988, a habitability decision was made by the NYSDOH and a report was produced recommending the options for land uses in the EDA.

The decision was based upon an application of criteria developed by the State and Federal governments to sampling data obtained from the EDA, other areas of Niagara Falls and two communities in Erie County. The sampling data were measurements of indicator chemicals in air and soil and dioxin in soil. These indicator chemicals were chosen to assess the potential for Love Canal chemicals to be in the EDA. Areas 4-7 met all of the habitability criteria and may be used for residential or other purposes.

Areas 1-3 did not meet the criteria established for habitability. Areas 2-3 had lesser indications of hazardous potential than Area 1, but they did, nevertheless, exceed the comparison criteria for habitability. These areas were reported not suitable for residential use without remediation. However, Areas 2-3 were reported suitable for commercial or industrial uses without remediation. The Love Canal Area Revitalization Agency (LCARA) then developed a master plan for the revitalization of the EDA. According to this master plan, Area 1 is to be landscaped as the gateway to Niagara Falls, Areas 2-3 developed as light industrial/commercial areas and Areas 4-7 as residential. With this proposed revitalization plan, no further remediation is required within the EDA.

## OPERABLE

### UNIT NO.    DESCRIPTION

#### 11                    ADMINISTRATION BUILDING

In July 1986, construction of a permanent on-site administration building was started. Experience had indicated that additional space was needed for storage of clean equipment, materials and supplies, hygienic purposes and office space for staff who operated the Love Canal Leachate Treatment Facility. The new building was constructed apart from the existing leachate treatment facility to minimize the chance of contamination of the proposed facilities, and because there was no room adjacent to the treatment facility for the addition of a new building. Construction of the new administration building was completed in January 1987 and treatment facility personnel moved in February 1987.

#### 14                    100th STREET REMEDIATION - LOT C

A soil assessment of the Love Canal Emergency Declaration Area for the Love Canal Habitability Study was completed in the Fall of 1987. The soil samples were analyzed for the presence of the toxic chemical dioxin, 2,3,7,8 - TCDD.

On a vacant lot on 100th Street, (Lot C), 2,3,7,8 - TCDD was found in one sample above the level of concern for dioxin in residential soil. Under Federal law, remedial actions must be taken to clean up contaminated areas exceeding the level of concern.

In March, 1988, the vacant lot area was isolated. To define the extent of dioxin contamination, the area was resampled and analyzed for TCDD in April 1988. During the summer the DEC designed a detailed extent-of-excavation plan. In November 1988 the contaminated soil was removed, placed in drums and stored at the Love Canal site. The excavated area was filled with clean soil and the fence removed in 1989. The drums of soil were eventually removed from the site by Occidental Chemical Corp. to their Niagara Falls Main Plant. Testing done on November 13, 1988, confirmed that the remediation was successful.

#### 15                    CAYUGA CREEK INVESTIGATION

The Cayuga Creek drainage basin has served as the receiving waters for leachates originating from the Love Canal. To examine the efficacy of remedial work associated with Love Canal, monitoring of young of the year fish for dioxins and dibenzofurans was conducted. The final round of fish sampling for the study was conducted in October 1992. The study was completed and a final report was issued in August 1993. The final report concluded that the dioxin concentrations in young-of-the-year fish have declined in two stages.

## OPERABLE

### UNIT NO.    DESCRIPTION

The first stage decline between (1982 and 1987) of approximately 70 percent is associated with the completion of the containment of the Love Canal landfill site and the cleaning of the storm sewers in the area. The second decline (between 1987 and 1992) of an additional 46 to 86 percent is dependent on location and is due to removal of highly contaminated sediments from Black and Bergholtz Creeks.

The study also concluded that the principal sources of dibenzofurans in fish from the Cayuga Creek drainage basin appeared to be from upstream sources in the Niagara River.

#### 18                    FRONTIER AVENUE - SEWER EXCAVATION

Frontier Avenue is located at the southern boundary of the Love Canal Site. Contaminated storm sewer pipe bedding was discovered during past investigations of the storm sewer located in Frontier Avenue. Contamination was specifically identified at the intersection on Frontier Avenue and 100th Street and east along Frontier Avenue from the intersection. Under a construction contract, the storm sewer piping and contaminated bedding were removed and replaced with uncontaminated materials. As an optional work item test pits were dug to determine if contamination existed in the pipe bedding of the 42-inch storm sewer under the LaSalle Expressway downstream of Frontier Avenue. Observations during test pitting and analytical results of test pit samples indicated that contamination was not present, so no remedial action was taken. The inside of the pipe was hydraulically cleaned and the waste water transported to the Love Canal Leachate Treatment Facility and treated. The remedial work at Frontier Avenue was completed in July of 1993.

#### A9                    IRM EDA HAB MAINTENANCE

In 1986 the Superfund Amendments and Reauthorization Act authorized federal funds for maintenance of the vacant homes beyond Rings I and II whose condition had been steadily deteriorating. In 1987 the DEC contracted consulting engineering services to inspect the homes, prepare general construction and heating contracts, and oversee construction activities. In June 1988, under a general construction contract, work began on the vacant homes. Activities included repairing roofs, boarding up doors and windows, stripping of deteriorated materials within the houses and other stabilizing activities. The contract work was completed in May 1989 and the entire home maintenance program was transferred to the Love Canal Area Revitalization Agency in 1989.

OPERABLE

UNIT NO.    DESCRIPTION

B9                IRM AREA 4

EDA 4 is located approximately 300-feet north of the Love Canal Site. As a result of the Habitability Study of the neighborhood, a determination was made that two lots, #1044 100th Street, and #9909 Black Creek Drive contained elevated levels of benzene hexachloride. The New York State Department of Health (NYSDOH) reviewed results of field investigations and recommended that certain areas of the fill surrounding the two houses and a portion of lot #9903 Black Creek Drive be excavated and disposed of off site. NYSDEC identified limits of remedial construction based on the NYSDOH recommendations. The contaminated soils were removed and replaced with clean compacted fill. Sidewalks, driveway and vegetation replacement was also performed.

During excavation of soils in #9903 Black Creek Drive, a black ash material was encountered. NYSDEC conducted a subsurface investigation to identify the limits of the material and collect samples for analysis. The results of the investigation indicated that some of the samples of black ash contained elevated concentrations of mercury, but were not hazardous according to the Toxicity Characteristic Leaching Procedure (TCLP). NYSDEC identified the limits of removal, removed about 238 cubic yards of contaminated soil from #9903 Black Creek Drive, and disposed of it at the 102nd Street Landfill. The contaminated soils were replaced with clean fill. This work was completed in August 1993.

a:bbatt3.wp:BL:et



M E M O R A N D U M

TO: Gerald Rider, Chief, O&M Section *GRM*  
FROM: Robert L. Marino, Chief, Site Control Section  
SUBJECT: Love Canal, ID #932020  
DATE: MAY 24 1994

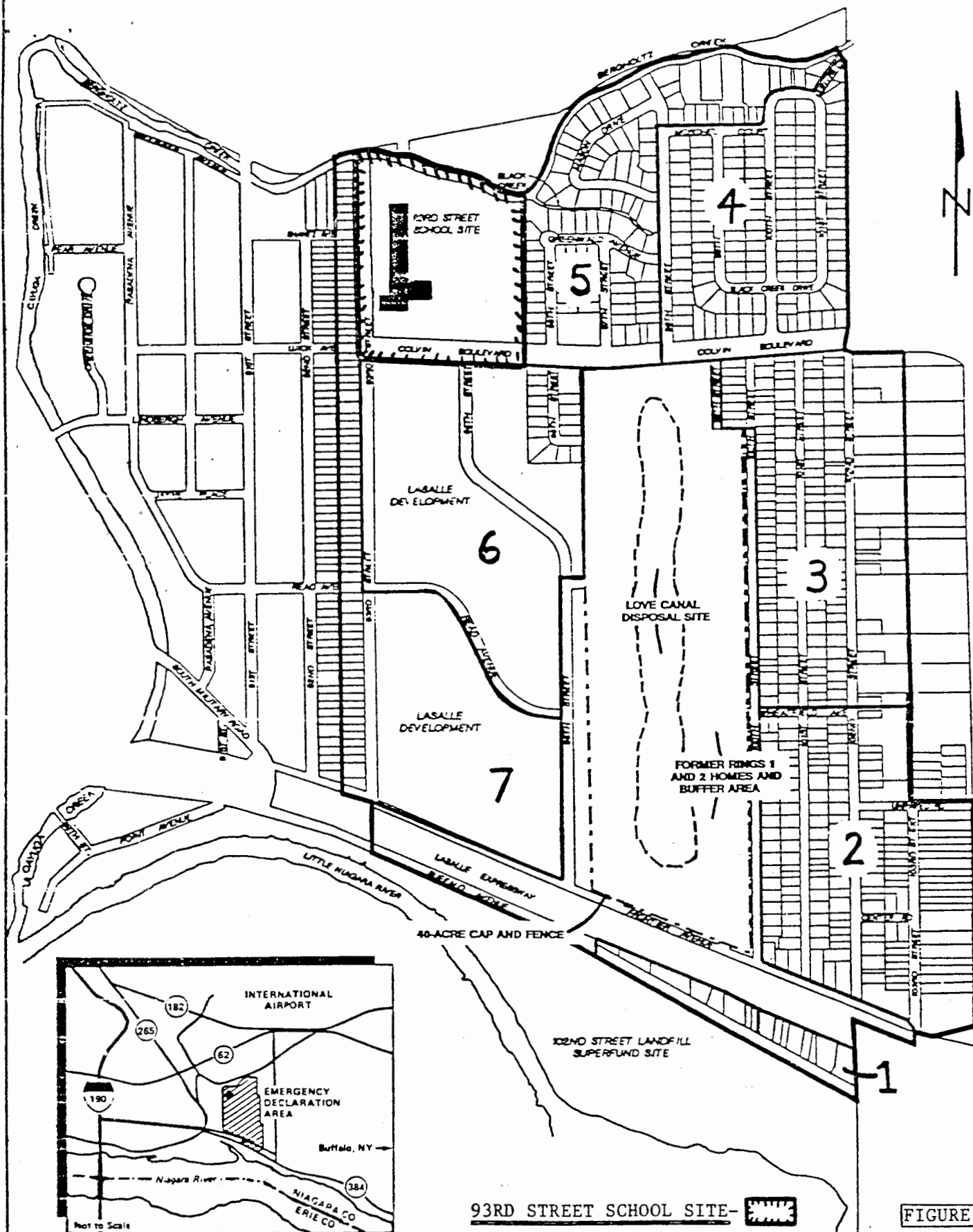
There are a few things we need to adjust on the Love Canal Reclass package before we can circulate it. They are:

- 1) The Tax Map numbers of the listed parcels need to be attached to the package. I believe we have them in our main file and I can have Dennis attach them. *See Dennis*
- 2) The latitude and longitude need to be added. *OK, Dennis*
- 3) The analytical data on any standard contravention needs to be included. Are there any groundwater or surface water standards currently in contravention? If so, only the most recent information needs to be attached. *None*
- 4) In Box 12, a few data items need to be filled. Do we know the classification of the stream identified in 12a? Do we know the general direction of groundwater flow on-site (12b)? I think that the Love Canal Area is part of the Niagara Falls Economic Development Zone (12e). A.K. *See Water Summary*
- 5) A list of owners of the site can be developed from the same list that shows the tax map numbers and can be attached. *See Land*
- 6) The package preparer needs to sign the final package.

It may seem picky, but anything surrounding this site comes under intense scrutiny, and I think that we should make the package as complete as we can. Please use Dennis and Tony to help you if you need any further assistance.

Attachment





## SOURCE:

EDA BOUNDARIES TAKEN FROM NEW YORK STATE  
 REAL PROPERTY TAX LAW ARTICLE 17, SECTION 1702

**NEW YORK STATE  
Disaster Preparedness Commission**

Public Security Building  
State Campus  
Albany, New York 12226-5000

David Axelrod, M.D.  
Chairman

MG Lawrence P. Flynn  
Secretariat

**NEW YORK STATE**



**DISASTER  
PREPAREDNESS  
COMMISSION**

August 9, 1990

Dear Mayor O'Laughlin:

Pursuant to the State Environmental Quality Review Act, the Disaster Preparedness Commission met today to consider and take action on the Master Plan developed by the Love Canal Area Revitalization Agency (LCARA) for revitalization of the Love Canal Emergency Declaration Area (EDA). The DPC unanimously approved the enclosed findings statement.

This statement approves the actions set forth in LCARA's Master Plan as they relate to the habitable portions of the EDA (Areas 4-7) and the area south of the LaSalle Expressway (Area 1). However, for the reasons stated in the findings, the DPC cannot issue a positive finding with respect to the areas of the EDA east of the Love Canal (Areas 2 and 3). Expenditures of funds which promote the commercial development of Areas 2 and 3 will not be approved.

With you, I look forward to the restoration of viable neighborhoods in the Love Canal Emergency Declaration Area.

Sincerely,

David Axelrod, M.D.  
Commissioner of Health

Enclosure

Hon. Michael C O'Laughlin  
Chairman  
Love Canal Area Revitalization Agency  
9501 Colvin Boulevard  
Niagara Falls, New York 14304

cc: Disaster Preparedness Commission members

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF HAZARDOUS WASTE REMEDIATION  
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 4

REGION: 9

SITE CODE: 932020

EPA ID: NYD000606947

NAME OF SITE : Love Canal

STREET ADDRESS: In the area of 97th and 99th Streets

TOWN/CITY:

COUNTY:

ZIP:

Niagara Falls

Niagara

14304

SITE TYPE: Open Dump- Structure- Lagoon- Landfill-X Treatment Pond-  
ESTIMATED SIZE: 60 Acres

SITE OWNER/OPERATOR INFORMATION:

CURRENT OWNER NAME....: \*\* Multi - Owner Site \*\*

CURRENT OWNER ADDRESS.: \* \* \* \* \*

OWNER(S) DURING USE...: Hooker Chemical & Plastics Corporation

OPERATOR DURING USE...: Hooker Chemicals and Plastics

OPERATOR ADDRESS.....: Buffalo Ave, Niagara Falls, NY

PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1942 To 1953

SITE DESCRIPTION:

This site was used to dispose of industrial hazardous wastes as well as municipal wastes during its 11 year period of operation. In 1979, a clay cap was installed and a permanent leachate collection system was constructed. An activated carbon treatment plant treats the leachate prior to discharge to the Niagara Falls W.W.T.P. In 1984 the installation of an extended cap which includes a synthetic membrane covering an area of concern was completed. Also starting from 1983, investigations were conducted to determine the extent of contamination in Black, Bergholtz and Cayuga Creeks, as well as the 102nd Street delta into the Niagara River. Due to these investigations the following remedial actions were completed: cleaning of off-site sewers, installation of perimeter wells to assess the effectiveness of Love Canal remedial actions, construction of an administration building for the treatment plant and the cleaning of Black and Bergholtz Creeks.

Under the terms of a consent decree negotiated by the NYSDEC, Occidental Chemical Corporation (OCC) has stored the Love Canal wastes at its plant for eventual thermal destruction. OCC assumed ownership and operational control of the site in January 1995.

The Emergency Declaration Areas 4 to 7 have been considered habitable.

Contaminated soil from two lots from area 4 have been removed. Areas 1,2 and 3 have been determined to be suitable for commercial and or light industrial use.

HAZARDOUS WASTE DISPOSED:

TYPE	QUANTITY (units)
benzoyl chloride, metal chlorides	21,800 tons
liquid disulfides, chlorobenzenes, chlorotoluene	
benzyl chloride, Thionyl chloride,	
sulfides, misc. acid chlorides,	
hexachlorhexanes, trichlorophenol,	
dodecyl mercaptans	

ANALYTICAL DATA AVAILABLE:

Air-X Surface Water-X Groundwater-X Soil-X Sediment-X

CONTRAVENTION OF STANDARDS:

Groundwater-X Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE...: Litigation State- X Federal-  
STATUS: Negotiation in Progress- X Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-X  
NATURE OF ACTION: clay cap, leach. coll. & treat. sys. instal. soil rem

GEOTECHNICAL INFORMATION:

SOIL TYPE: Fill/Fine sand over clay till. Bedrock at approx. 30ft

GROUNDWATER DEPTH: Approximately 5 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

The remedial works done at this site have addressed the environmental problems.

Monitoring indicates that the wastes are contained by the leachate collection system and no significant chemical contamination is migrating off-site.

ASSESSMENT OF HEALTH PROBLEMS:

The site is fenced and access is restricted. The site is also covered with a clay cap, a synthetic membrane and a vegetative cover in order to reduce infiltrating precipitation, and to prevent direct contact with wastes and atmospheric emissions of volatile contaminants and fugitive dust. A permanent leachate collection system prevents the migration of chemicals off-site and leachate is treated prior to discharge to the City's waste water treatment plant. Perimeter groundwater monitoring wells and sewer junctions are monitored annually to confirm containment. Residents remaining in the EDA are supplied with public water. North of Colvin Blvd. and west of the Love Canal (EDA 4-7) has been declared suitable for residential use and is being re-habitated. South and east of the Love Canal (EDA 1-3) will not be habitable without being remediated.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF HAZARDOUS WASTE REMEDIATION  
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: *2 4*

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Niagara

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Under the terms of a partial consent decree negotiated by the NYSDEC, Occidental Chemical Corporation (OCC) has stored the Love Canal wastes at its plant for eventual thermal destruction. ~~OCC has operated the~~ *OCC has operated the* ~~assumed ownership and operational~~ *control of the* ~~The Emergency Declaration Areas 4 to 7 have already been considered habitable.~~ *side in 1995.* Contaminated soil from two lots from area 4 have been removed. Areas 1,2 and 3 have been determined to be suitable for commercial and or light industrial use. *Jan*

HAZARDOUS WASTE DISPOSED:

TYPE	QUANTITY (units)
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hexachlorhexanes, trichlorophenol,	
dodecyl mercaptans	

ANALYTICAL DATA AVAILABLE:

Air-X Surface Water-X Groundwater-X Soil-X Sediment-X

CONTRAVENTION OF STANDARDS:

Groundwater-X Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE...: Litigation State- X Federal-  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Dear \_\_\_\_\_:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (NYSDEC) must maintain a registry of all inactive disposal sites or known to contain hazardous waste. The ECL also mandates that this Department notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 9-32-020  
Site Name: Love Canal  
Site Address: \_\_\_\_\_

Classification Change from 2 to 4

The reason for the change is as follows:

The remedial activities at the Love Canal Site have been  
completed. As a result the site now is being operated and  
maintained and monitored to ensure the remedy  
continues to be protective of human health and  
environment.

Enclosed is a copy of the New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry and Annual Report, and an explanation of the site classifications. The Law allows the owner and /or operator of a site listed in the Registry to petition the Commissioner of the New York State Department of Environmental Conservation for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition. Such petition may be addressed to:

Langdon Marsh  
~~Thomas G. Jorling~~, Commissioner  
New York State Department of Environmental Conservation  
50 Wolf Road  
Albany, New York 12233-0001

For additional information, please contact me at (518) 457-0747.

Sincerely,

Robert L. Marino  
Chief  
Site Control Section  
Bureau of Hazardous Site Control  
Division of Hazardous Waste Remediation

Enclosures

bcc: w/o Enc.  
E. Barcomb  
R. Marino

\_\_\_\_\_  
\_\_\_\_\_  
Section Chief  
Originator

w/ Enc. (Copy of Site Report form only)  
R. Dana  
G. Anders Carlson, NYSDOH  
L. Condra

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Appropriate Attorney  
Regional People  
Remediation People  
J. Rider (if a Class 4 site)



ADJAL-T  
RECLASS

New York State Department of Environmental Conservation  
50 Wolf Road, Albany, New York 12233



Thomas C. Jorling  
Commissioner

Dear \_\_\_\_\_:

The Department of Environmental Conservation (DEC) maintains a Registry of sites where hazardous waste disposal has occurred. Property located at \_\_\_\_\_ (street address) in the \_\_\_\_\_ (city, village or town) of \_\_\_\_\_ and County of \_\_\_\_\_ and designated as Tax Map Number \_\_\_\_\_ was recently \_\_\_\_\_ (added to as a Class \_\_\_\_\_, deleted from or reclassified as a Class \_\_\_\_\_ in) the Registry. The name and site I.D. number of this property as listed in the Registry is \_\_\_\_\_.

The Classification Code \_\_\_\_\_ means that \_\_\_\_\_.

We are sending this letter to you and others who own property near the site listed above, as well as the county and town clerks. We are notifying you about these activities at this site because we believe it is important to keep you informed.

If you currently are renting or leasing your property to someone else, please share this information with them. If you no longer own the property to which this letter was sent, please provide this information to the new owner and provide this office with the name and address of the new owner so that we can correct our records.

The reason for this recent classification decision is as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
*(Here include explanation. Statement should describe waste found, if any; the nature of State investigation activities which resulted in above-described listing, delisting or reclassification; explanation of what we know about the contamination (affected soil, groundwater); if site remains on Registry, what happens next. Include health information: monitoring; protective actions; health advisories, etc.).*

If you would like additional information about this site or the inactive hazardous waste site remedial program, call:

DEC's Inactive Hazardous Waste Site Toll-Free Information Number 1-800-342-9296 or  
New York State Health Department's Health Liaison Program (HeLP) 1-800-458-1158, ext. 402.

Sincerely,  
Robert L. Marino  
Chief, Site Control Section  
Bureau of Hazardous Site Control  
Division of Hazardous Waste Remediation

bcc: R. Marino

\_\_\_\_\_  
(Investigation Section Chief)

\_\_\_\_\_  
(Regional CPS)

\_\_\_\_\_  
(Originator)

A. Carlson

L. Ennist

**New York State Department of Environmental Conservation****MEMORANDUM**

**TO:** Charles Goddard, Assistant Director, Division of Hazardous Waste Remediation  
**FROM:** Earl Barcomb, Director, Bureau of Hazardous Site Control  
**SUBJECT:** Love Canal  
**DATE:** DEC 21 1994

*[Handwritten signature]*

Per your note, attached is a draft press release for the reclassification of the Love Canal Site.

A draft fact sheet is also attached for your review. It is suggested that the fact sheet be released to the Love Canal residents a day or two before the press release. As you know, the NYSDEC will transfer responsibility for the operation and maintenance of Love Canal to Occidental Chemical Corp. (OCC) on January 5, 1995. OCC is planning to meet with the Niagara Falls' Citizen Advisory Panel sometime in the Spring of 1995, and will hold an open house with citizens of the Love Canal area.

In addition, a letter of thanks from the Commissioner to the plant personnel is also attached for your consideration.

Attachments



DECEMBER 27, 1994

# UPDATE

## LOVE CANAL TRANSFERRED TO OCCIDENTAL CHEMICAL CORPORATION

Dear Interested Citizen:

The New York State Department of Environmental Conservation would like to update you on the transfer of the operations and maintenance of the Love Canal site by Occidental Chemical Corporation (OCC). OCC will assume this responsibility on January 5, 1995, under a Consent Judgment which settled New York State's case against the company.

The Department is pleased to inform you that all remedial activities at the Love Canal site have been completed. As a result, the site will be reclassified from Class 2 (A site posing a significant threat to the public health or environment and action is required) to a Class 4 (A site which has been properly closed and requires continued management).

*Some of the common questions or concerns about the transfer are answered below:*

**QUESTION: When will the transfer actually occur?**

This will occur on January 5, 1995. The Consent Judgment, which became effective in October 1994, called for OCC to undertake and assume responsibility for all operations and maintenance activities at the site 90 days after the judgment became effective.

**QUESTION: What will be done to train OCC's staff?**

So that an effective transfer of responsibility for the operation, maintenance and long term monitoring of the Love Canal takes place, transition teams were established by OCC and the Department to oversee the takeover. Formal training of OCC's technical staff started on November 14, 1994. The training, as planned, will be completed by January 5, 1995, when OCC is scheduled to have full responsibility for the operation and maintenance of Love Canal.

**QUESTION: How will the Department know if OCC's staff can actually operate the site?**

To ensure that OCC's staff can run the plant safely and effectively a second 90-day evaluation period, starting January 5, 1995 and ending April 5, 1995, will take place. During this time the Department will continue to assess OCC's staff to ensure that the containment and monitoring systems are maintained and operated under effective, continuous, and clearly accountable management. To accomplish this, the state will assign three full-time trainers/inspectors to the site. In addition, the Department will retain the option, at its sole discretion, to assign one trainer/inspector for a three month period at any time within the first two years after OCC's transfer.

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

270 Michigan Avenue  
Buffalo, N.Y. 14203

PRINTED ON RECYCLED PAPER

**QUESTION: Will the Department perform long term oversight of OCC's activities at the site?**

Yes. After the end of the evaluation period (April, 1995) the Department will conduct inspections quarterly for the first year and annually thereafter. At that time the state will also collect separate samples of the plant's treated sewer discharge and between five and ten monitoring wells to check the accuracy of OCC's sampling and testing methods. In addition, OCC is required to submit an annual report to the Department. The report will outline activities performed at the site, including the monitoring program, and evaluate the performance and effectiveness of the remedial program. The report is to:

- evaluate the performance of the collection system in maintaining inward gradients;
- describe the operation of the plant and any modifications made;
- evaluate the treatment plant in meeting the sewer use discharge permit; and,
- evaluate the overall effectiveness of the remedy in preventing chemical migration.

Other separate annual report requirements applicable to hazardous waste generation, storage and transportation are required. Any spills are to be reported according to the appropriate regulations. The Consent Judgment also provides that OCC must obtain written approval from the Department when major modifications to the plant are proposed. The City of Niagara Falls also requires a quarterly report of sewer discharges and performs inspections semi-annually, which includes a sample and analysis of the plant's sewer discharges. Other inspections will periodically be made by other agencies, including OSHA, local building and fire departments.

**QUESTION: Will the public notice any changes in the way the site looks?**

The Department does not believe the public will notice any significant changes to the appearance of the site. Under the Consent Judgment OCC will assume complete responsibility for all upkeep activities at the site. This includes such things as cutting the grass, keeping the fence in good repair, maintaining security, painting and repairing of all building and structures.

**FOR MORE INFORMATION**

If you have any questions regarding the Consent Judgment, the transfer of the operations and maintenance of the Love Canal site to Occidental Chemical Company, or the reclassification of the site to a Class 4, please feel free to call Michael Podd, at (716) 851-7220; or by calling, toll free, 1-800-342-9296 and leaving your name, address and request. Written comments or questions should be directed to Mr. Podd at NYSDEC's Region 9 Office, 270 Michigan Avenue, Buffalo, N.Y. 14203. For health related concerns regarding this site please contact Ms. Charlene Thiemann, New York State Department of Health, Health Liaison Program at, 1 800-458-1158, Ext. 402.

Sincerely,

Michael R. Podd  
Citizen Participation Specialist

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
270 Michigan Avenue  
Buffalo, N.Y. 14203

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**DRAFT RELEASE - NOT FOR PUBLICATION**

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Today Department of Environmental Conservation Commissioner Langdon Marsh turned over operations and maintenance responsibility for the Love Canal site to Occidental Chemical Corporation. With State oversight, Occidental will be required to maintain the containment and treatment facility for as long as needed to protect the public health and the environment.

"Today marks a milestone for New York State's Hazardous Waste Remediation program. The crisis at Love Canal was the beginning of the State's efforts to correct past chemical disposal practices. A great deal of effort has gone into the remediation of the Love Canal site. New technologies needed to be developed, funding sources had to be found and, laws and regulations had to be written, to tackle the problems. New York met these challenges." Commissioner Marsh said.

"The fact that OCC will now be performing all operations and maintenance activities at the site not only marks a new phase in the history of the canal; but, it symbolizes the progress the program has made in cleaning up sites across New York State. The remedial work at Love Canal is complete. This site will now join a growing number of sites across the State where the Department's efforts are shifting from the investigation and construction of the remedies to the monitoring and maintenance of remediated sites." Commissioner Marsh continued.

The Consent Judgment, which became effective in October 1994, called for OCC to undertake and assume responsibility for all operations and maintenance activities at the site 90 days after the judgment became effective. Formal training of OCC's technical staff started on November 14, 1994 and will be completed by January 5, 1995, when OCC is scheduled to have full responsibility for the operation and maintenance of Love Canal. To ensure that OCC's staff can run the plant safely and effectively a second 90-day evaluation period, ending April 5, 1995, will take place. During this time the Department will continue to assess OCC's staff to ensure that the containment and monitoring systems are maintained and operated under effective, continuous, and clearly accountable management.

After the end of the evaluation period (April, 1995) the Department will conduct inspections quarterly for the first year and annually thereafter. In addition, OCC is required to submit an annual report to the Department. The report will outline activities performed at the site, including the monitoring program, and evaluating the performance and effectiveness of the remedial program. OCC will also have to comply with requirements applicable to hazardous waste generation, storage and transportation are required. Any spills are to be reported according to the appropriate regulations. The Consent Judgment provides that OCC must obtain written approval from the Department when major modifications to the plant are proposed.

Occidental is assuming responsibility for the Love Canal containment and treatment facility under a Consent

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**DRAFT RELEASE - NOT FOR PUBLICATION**

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Judgement entered before U.S. District Court Judge John T. Curtin on June 21, 1994. State costs related to training OCC staff and continuing oversight role will be reimbursed by the company. The agreement also required the company to place \$47.5 million in an escrow account and will, by June 3, 1997, pay a total of \$98 million to New York State. As part of the \$98 million settlement, OCC shall pay \$2.5 million for one or more special projects located in Niagara County which will educate or serve as a resource to the community on environmental issues or enhancing the environment.

To reflect the new status of the Love Canal site, the Department is in the process of changing the site's classification in the New York State Registry of Inactive Hazardous Waste Sites. The site will be reclassified from a Class 2 (A site posing a significant threat to the public health or environment and action is required) to a Class 4 (A site which has been properly closed and requires continued management).

In the 1970's, in response to complaints from residents of homes built along the filled and covered former 3,000 foot long canal, New York State and the federal government conducted studies on groundwater pollution, basement air and sump water contamination. A federal and State health emergency was declared at Love Canal in August 1978. By May 1980 a series of emergency declarations and orders had been issued which eventually led to the permanent relocation of about 250 families living directly adjacent to the canal and a voluntary relocation program covering 550 additional families living near the canal.

Faced with this crisis, the State has made a major commitment to halt the environmental damage, stop the outward migration of chemicals from the landfill and return the area to a productive community. To accomplish these goals a number of significant remedial activities have taken place.

In October 10, 1978 work began on the 8,000 foot long collection system and leachate treatment plant. By December 7, 1979, the system was completed when leachate treatment plant began operations. In July 1980, a 22 acre cap consisting of three feet of well-compacted clay covered the entire landfill. Improvements to the containment began in June 1982, when the cap was expanded to over 40 acres and upgraded to include a synthetic membrane and 18 inches of top soil. Later the Administration Building, Drum Storage Building and the Dewatered Containment Facility were built.

In order to evaluate the effectiveness of the remedial work performed at the Love Canal the Long Term Monitoring Program was initiated. A system of over 50 overburden and bedrock wells were installed near the canal's perimeter to furnish hard evidence that the containment system is working and to provide early warning if undetected problems develop with the containment system. Evaluation of the data from these wells leads to the conclusion that the barrier drain is capturing all leachate migrating horizontally outward from the Canal, as well

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**DRAFT RELEASE - NOT FOR PUBLICATION**

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as pulling groundwater, which is outside the barrier drain, back toward the collection system.

The remedial efforts extended to the neighborhood surrounding the now contained canal. These efforts included: the cleaning of over 63,400 linear feet of storm and sanitary sewers; the excavation and off-site disposal of approximately 11,000 cubic yards of the contaminated soil from the rear parking lot and play ground behind the 93rd Street School; remediation of over 3,300 feet of Dioxin contaminated sections of Bergholtz Creek and Black Creek; the removal of about 1,100 cubic yards of contaminated soil found in fill used on three lots; 9909 and 9903 Black Creek Drive, and 1044 100th Street; and, the excavation and replacement of contaminated storm sewer pipe bedding along a small stretch of Frontier Avenue.

A major milestone in the remediation efforts for Love Canal was passed on September 27, 1988 when Dr. David Axelrod, Commissioner of the New York State Department of Health, issued his "Decision of Habitability" for the Emergency Declaration Area (EDA). In making his decision, Dr. Axelrod followed criteria which defined HABITABLE as: "Suitable for normal residential use without any restrictions." This meant that individuals could live in the area and feel comfortable about raising their families there, with children living and playing in the area.

After extensive study, the results were applied to the agreed upon habitability criteria. Dr. Axelrod determined that about 2/3 of the area met all of the habitability criteria and was suitable for unrestricted residential use or other purposes. About 1/3 of the area did not meet the habitability criteria and was not suitable for normal residential use without remediation; however, the area was deemed suitable for other purposes such as commercial or industrial use without remediation.

This decision enabled the Love Canal Area Revitalization Agency to develop a Master Plan for 350 acres of the Love Canal area. This area contains 262 homes. These homes are being improved and sold to home buyers as quickly as market conditions will allow. Of equal significance was the decision to change the land use for areas declared non-habitable to an industrial-commercial classification.