CITY OF LOVELAND, COLORADO

GENERAL AND NO-LITIGATION CERTIFICATE

The undersigned hereby certify that they are the Mayor and the City Attorney for the City of Loveland, Colorado (the "City") and hereby make the following certifications on behalf of the City in connection with: (i) the Cooperation Agreement dated March 7, 2019 (the "DDA Cooperation Agreement"), among the City, Foundry Loveland Metropolitan District (the "District") and the Loveland Downtown Development Authority; and (ii) the Second Amendment to District Pledge Agreement dated January 15, 2019 (the "Second Amendment" and, together with the DDA Cooperation Agreement, the "City Agreements"), between the City and the District, provided that the certifications provided in paragraph 8 below are made solely by the City Attorney, and are given in his limited capacity as legal counsel to the City for general matters. As of the date hereof, the District and Compass Bank d/b/a BBVA Compass (the "Bank"), have entered into a Loan Agreement (the "Loan Agreement") pursuant to which the Bank has agreed to make a loan to the District payable, in part, from revenues payable by the City to the District pursuant to the DDA Cooperation Agreement.

WE, THE UNDERSIGNED OFFICIALS OF THE CITY CERTIFY, TO THE BEST OF OUR KNOWLEDGE, THAT:

1. The City has been created and exists as a home rule municipal corporation under the laws of the State of Colorado (the "State") and its home rule charter (the "Charter"), and is a political subdivision of the State with full power and authority to adopt the City Resolutions (as hereinafter defined), and to enter into and perform its obligations under the City Agreements.

2. On January 15, 2019, the City Council for the City (the "City Counsel") adopted Resolution #R-11-2019, pertaining to the issuance of certain indebtedness by the District, a copy of which resolution is attached hereto as Exhibit A.

3. The Second Amendment was approved by the City Council pursuant to Resolution #R-12-2019, adopted on January 15, 2019, a copy of which resolution is attached hereto as Exhibit B.

4. The DDA Cooperation Agreement is being executed and delivered pursuant to the authority conferred by the City Council pursuant to Resolution #R-38-2017, adopted on April 25, 2017, a copy of which resolution is attached hereto as Exhibit C (such resolution, together with the resolutions referenced in paragraphs (2) and (3) above, being referred to collectively herein as the "City Resolutions").

5. The adoption by the City Council of the City Resolutions was conducted in accordance with all requirements of the Charter, Colorado law and all applicable procedural rules.

6. None of the City Resolutions has been supplemented, repealed, rescinded, revoked, modified, amended, changed or altered in any manner since its adoption by the City Council and each City Resolution is in full force and effect on the date hereof.

7. Each of the City Agreements has been duly authorized, executed and delivered on behalf of the City.

8. Assuming due authorization, execution and delivery by the other parties thereto, each of the City Agreements constitutes a valid and binding obligation of the City enforceable in accordance with its respective terms.

9. The DDA Cooperation Agreement is being executed and delivered pursuant to the authority conferred by eligible electors of the City pursuant to Ballot Issue No. 5C approved at an election held on November 7, 2017, which election was coordinated with the Larimer County Clerk and Recorder. A copy of the notices provided by the Larimer County Clerk and Recorder with respect to such election and certified election results is attached hereto as Exhibit D.

10. The City has not been and is not, as of the date hereof, in breach of or default under either of the City Agreements. The authorization, execution and delivery by the City of the City Agreements did not and will not in any material respect conflict with or constitute on the part of the City a breach of or default under the Charter or any applicable law, rule, regulation, resolution, ordinance, judgment, order or decree to which the City is subject or under any indenture, commitment, agreement or other instrument to which the City is a party or by which it is or may be bound or to which any of its property or other assets is or may be subject.

11. There is no action, suit, proceeding or investigation at law or in equity, before or by any court, public board or body which has been served on the City or, to the knowledge of the City, threatened in writing against or affecting the City: (i) to restrain or enjoin the City's participation in, or in any way contesting the existence of the City or the powers of the City with respect to the transactions contemplated by the City Agreements and the consummation of such transactions, or (ii) which, if successful, would materially and adversely affect the City's power to perform its obligations under the City Agreements.

12. All meetings of the City Council pertaining to the adoption of the City Resolutions have complied with the open meeting provisions of the Colorado Sunshine Act of 1972, Part 4 of Article 6 of Title 24, Colorado Revised Statutes, and advance public notice of the time and place of each of the meetings was duly given in accordance with the Charter and the applicable laws of the State.

By execution of this Certificate, the undersigned does not intend that any person other than the parties to the Loan Agreement shall rely upon this Certificate. This Certificate is not intended to induce reliance or induce any third party to enter into a transaction or transactions.

IN WITNESS WHEREOF, we have hereunto set our respective signatures as of this 10th day of April, 2019.

CITY OF LOVELAND, COLORADO

City Attorney: _____

Mayor: _____

EXHIBIT A

City Resolution Pertaining to District Indebtedness

RESOLUTION #R-11-2019

A RESOLUTION OF THE LOVELAND CITY COUNCIL APPROVING THE ISSUANCE OF DEBT BY FOUNDRY LOVELAND METROPOLITAN DISTRICT

WHEREAS, pursuant to Section 32-1-204.5, C.R.S., the City Council (the "City Council") of the City of Loveland, Colorado (the "City") approved the Service Plan (the "Service Plan") for Foundry Loveland Metropolitan District (the "District") on September 20, 2016; and

WHEREAS, capitalized terms and phrases not otherwise defined herein have the meaning assigned them in the Service Plan; and

WHEREAS, Service Plan Section III.B.3 and Section VI.A, provide that the District is not authorized to issue any Debt, other than the City IGA, without the prior written approval of the City Council; and

WHEREAS, the City and the District entered into the City IGA, as contemplated by the Service Plan, on April 26, 2017, and a first amendment thereto, on November 1, 2017; and

WHEREAS, the District desires to issue Debt, in one or more series, as more fully described in **Exhibit "A"** attached hereto and incorporated herein by reference, to provide the District with additional funds to construct Public Improvements and to reimburse the Developer for the costs of construction of Public Improvements, and to provide the District with operating funds for the benefit of the District's residents and public at large as contemplated in the Service Plan; and

WHEREAS, the District has requested that the City Council approve the District's issuance of Debt, in one or more series, as more fully described in **Exhibit "A"**, to permit the District to defray the costs of installing Public Improvements, the costs of forming the District, and to provide funds related to the operation and maintenance of Public Improvements (the "Debt Request"); and

WHEREAS, the City Council has considered the Debt Request and all other testimony and evidence presented at a public meeting of the City Council, held on January 15, 2019.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LOVELAND, COLORADO:

Section 1. That the City Council meeting at which the Debt Request was discussed was open to the public; that all interested parties were heard or had the opportunity to be heard; and that all relevant testimony and evidence submitted to the City Council was considered.

Section 2. That evidence was presented that was satisfactory to the City Council for finding that the District has, or will have, the financial ability to discharge the proposed indebtedness on a reasonable basis.

Section 3. That the City Council hereby approves the District's Debt Request and approves the issuance of the Debt described on **Exhibit "A"** (the "2019 Authorized Debt"), in one or more series, to include but not be limited to obligations to reimburse advances from the Developer, bank loans, publicly or privately offered bonds, notes, and other instruments evidencing Debt, subject to the following conditions:

a. The maximum mill levy the District may levy for repayment of the 2019 Authorized Debt shall not exceed the Maximum Mill Levy set forth in the Service Plan.
b. The aggregate principal amount of the 2019 Authorized Debt shall not exceed $2,000,000.
c. Any portion of the 2019 Authorized Debt that consists of agreements to repay Developer advances shall bear simple interest at a fixed rate not to exceed the prime interest rate (as reported on the date of issuance by the *Wall Street Journal*) plus 3%, not to exceed 8.5%.
d. Any portion of the 2019 Authorized Debt issued to refund previously issued 2019 Authorized Debt, shall not count against the $2,000,000 maximum set forth in Section 3.b., so as to avoid the "double-counting" of issued debt.

Section 4. That all provisions of the Service Plan remain in full force and effect, and the District's actions taken in accordance with this Resolution are not a material departure from the Service Plan.

Section 5. That nothing herein limits the City's powers with respect to the District, the properties within the District, or the improvements to be constructed by the District.

Section 6. That the City's findings are based solely upon the evidence presented by the District and such other evidence presented at the public hearing, and the City has not conducted any independent investigation of the evidence. The City makes no guarantee as to the financial viability of the District or the achievability of results.

Section 7. That this Resolution shall be effective as of the date of its adoption.

Adopted this 15th day of January, 2019.

CITY OF LOVELAND, COLORADO, a Colorado municpal coporation

By: _____
Jacki Marsh, Mayor

ATTEST:

By: _____
City Clerk

CITY OF LOVELAND SEAL COLORADO

APPROVED AS TO FORM:

_____
City Attorney

EXHIBIT A

2019 Authorized Financing

Sources		Uses	
Loan Proceeds		Payoff Outstanding Developer Loan	$ 800,000
Tax-Exempt Loan	$ 995,000	Capitalized Interest Thru/Including 12/1/19 (est)	
Taxable Loan	420,000	Tax-Exempt Loan	74,000
		Taxable Loan	39,000
		Debt Service Reserve Fund (MADS)	
		Tax-Exempt Loan	64,000
		Taxable Loan	31,000
		Deposit to Project Fund	350,000
		Cost of Issuance	51,000
		Contingency	6,000
Total Sources	$1,415,000	Total Uses	$ 1,415,000

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FOUNDRY LOEVELAND METROPOLITAN DISTRICT FULL GROWTH MODEL (Developer Projections)				Construction Year -->	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
				Assessed Year -->	2017 *	2018**	2019	2020	2021	2022	2023	2024	2025	2026	2027
				Collection Year -->	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Absorption Summary	**Units**	**Comm SF**	**Value/SF**												
Cleveland Building															
Residential Apartments	99	91,031	$195.00		-	-	$ 17,751,045	-	-	-	-	-	-	-	-
Retail		7,362	$100.00		-	-	736,200	-	-	-	-	-	-	-	-
Lincoln Building															
Residential Apartments	56	50,534	$195.00		-	-	9,854,130	-	-	-	-	-	-	-	-
Retail		8,191	$100.00		-	-	819,100	-	-	-	-	-	-	-	-
320 N. Cleveland Building		6,000	$100.00		-	-	-	600,000	-	-	-	-	-	-	-
TownPlace Suites Hotel	102	62,910	$123.00		-	-	-	7,737,930	-	-	-	-	-	-	-
Movie Theater		27,400	$100.00		-	-	-	2,740,000	-	-	-	-	-	-	-
Market Value - New Construction															
Residential					-	-	27,605,175	-	-	-	-	-	-	-	-
Commercial					-	-	1,555,300	11,077,930	-	-	-	-	-	-	-
Market Value - Bi-Annual Reassessment															
Residential			2%		-	-	-	-	552,104	-	563,146	-	574,408	-	585,897
Commercial			2%		-	-	-	-	252,665	-	257,718	-	262,872	-	268,130
Cumulative Market Value															
Residential					$ -	$ -	$ 27,605,175	$ 27,605,175	$ 28,157,279	$ 28,157,279	$ 28,720,424	$ 28,720,424	$ 29,294,833	$ 29,294,833	$ 29,880,729
Commercial					88,406.90	3,418,860	1,555,300	12,633,230	12,885,895	12,885,895	13,143,612	13,143,612	13,406,485	13,406,485	13,674,614
Total Cumulative Market Value					$ 88,407	$ 3,418,860	$ 29,160,475	$ 40,238,405	$ 41,043,173	$ 41,043,173	$ 41,864,037	$ 41,864,037	$ 42,701,317	$ 42,701,317	$ 43,555,344
Cumulative Assessed Value															
Residential @ 7.20% RAR			7.20%		-	-	1,987,573	1,987,573	2,027,324	2,027,324	2,067,871	2,067,871	2,109,228	2,109,228	2,151,413
Commercial @ 29%			29%		25,638	441,541.00	451,037	3,663,637	3,736,909	3,736,909	3,811,648	3,811,648	3,887,881	3,887,881	3,965,638
Total Cumulative Assessed Value					$ 25,638	$ 441,541	$ 2,438,610	$ 5,651,209	$ 5,764,233	$ 5,764,233	$ 5,879,518	$ 5,879,518	$ 5,997,109	$ 5,997,109	$ 6,117,051
Maximum Mill Levy Available for Debt Service			20.00		20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Property Tax Available @ Max Mill Levy					$ 513	$ 8,831	$ 48,772	$ 113,024	$ 115,285	$ 115,285	$ 117,590	$ 117,590	$ 119,942	$ 119,942	$ 122,341
Specific Ownership Taxes (est. @ 8.5% of Property Taxes)			8.5%		44	751	4,146	9,607	9,799	9,799	9,995	9,995	10,195	10,195	10,399
Total Pledged Revenue					$ 556	$ 9,581	$ 52,918	$ 122,631	$ 125,084	$ 125,084	$ 127,586	$ 127,586	$ 130,137	$ 130,137	$ 132,740
Total Debt Service 2018 Loan (see below)					$ -	$ -	$ 41,105	$ 94,766	$ 94,816	$ 94,844	$ 94,849	$ 94,830	$ 94,888	$ 94,918	$ 94,918
Excess Revenue (Available for any Lodgers Fee shortfall)					$ 556	$ 9,581	$ 11,813	$ 27,866	$ 30,267	$ 30,240	$ 32,737	$ 32,756	$ 35,249	$ 35,219	$ 37,822
Debt Service Coverage @ Max Mill Levy					n/a	n/a	1.29x	1.29x	1.32x	1.32x	1.35x	1.35x	1.37x	1.37x	1.40x
Actual Mill Levy Required for Debt Service (Net of SOT)					n/a	n/a	15.4	15.3	15.1	15.1	14.8	14.8	14.5	14.5	14.2
DEBT SERVICE DETAIL - 2018 LOAN:															
Tax-Exempt Loan		$ 995,000													
Interest (4.68% thru Loan Term; 5.5% thereafter)		4.68%	5.50%		3,881	46,566	46,566	46,355	45,526	44,657	43,747	42,793	41,794	40,748	39,653
Less: Capitalized Interest		$ 73,490			(3,881)	(46,406)	(23,203)	-	-	-	-	-	-	-	-
Principal					-	-	4,500	17,726	18,568	19,449	20,373	21,340	22,353	23,415	24,527
Reserve Fund Earnings		64,000	0.25%		-	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)
Taxable Loan		$ 420,000													
Interest (5.92% thru Loan Term; 6.0% thereafter)		5.92%	6.00%		2,073	24,881	24,881	24,822	24,460	24,075	23,667	23,234	22,778	22,292	21,777
Less: Capitalized Interest		$ 39,279			(2,073)	(24,804)	(12,402)	-	-	-	-	-	-	-	-
Principal							1,000	6,100	6,500	6,900	7,300	7,700	8,200	8,700	9,200
Reserve Fund Earnings		31,000	0.25%		-	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)
Total Debt Service					$ -	$ -	$ 41,105	$ 94,766	$ 94,816	$ 94,844	$ 94,849	$ 94,830	$ 94,888	$ 94,918	$ 94,918
Unpaid Principal Balance															
Tax-Exempt Loan					$ 995,000	$ 995,000	$ 990,500	$ 972,774	$ 954,206	$ 934,757	$ 914,384	$ 893,044	$ 870,691	$ 847,276	$ 822,749
Taxable Loan					420,000	420,000	419,000	412,900	406,400	399,500	392,200	384,500	376,300	367,600	358,400
Total Unpaid Principal Balance					$ 1,415,000	$ 1,415,000	$ 1,409,500	$ 1,385,674	$ 1,360,606	$ 1,334,257	$ 1,306,584	$ 1,277,544	$ 1,246,991	$ 1,214,876	$ 1,181,149

CONFIDENTIAL

FOUNDRY LOEVELAND METROPOLITAN DISTRICT FULL GROWTH MODEL (Developer Projections)	Units	Comm SF	Value/SF		Construction Year -->	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
					Assessed Year -->	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
					Collection Year -->	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Absorption Summary																
Cleveland Building																
Residential Apartments	99	91,031	$195.00			-	-	-	-	-	-	-	-	-	-	-
Retail		7,362	$100.00			-	-	-	-	-	-	-	-	-	-	-
Lincoln Building																
Residential Apartments	56	50,534	$195.00			-	-	-	-	-	-	-	-	-	-	-
Retail		8,191	$100.00			-	-	-	-	-	-	-	-	-	-	-
320 N. Cleveland Building		6,000	$100.00			-	-	-	-	-	-	-	-	-	-	-
TownPlace Suites Hotel	102	62,910	$123.00			-	-	-	-	-	-	-	-	-	-	-
Movie Theater		27,400	$100.00			-	-	-	-	-	-	-	-	-	-	-
Market Value - New Construction																
Residential						-	-	-	-	-	-	-	-	-	-	-
Commercial						-	-	-	-	-	-	-	-	-	-	-
Market Value - Bi-Annual Reassessment																
Residential			2%			-	597,615	-	609,567	-	621,758	-	634,193	-	646,877	-
Commercial			2%			-	273,492	-	278,962	-	284,541	-	290,232	-	296,037	-
Cumulative Market Value																
Residential						$ 29,880,729	$ 30,478,344	$ 30,478,344	$ 31,087,911	$ 31,087,911	$ 31,709,669	$ 31,709,669	$ 32,343,862	$ 32,343,862	$ 32,990,739	$ 32,990,739
Commercial						13,674,614	13,948,107	13,948,107	14,227,069	14,227,069	14,511,610	14,511,610	14,801,842	14,801,842	15,097,879	15,097,879
Total Cumulative Market Value						$ 43,555,344	$ 44,426,451	$ 44,426,451	$ 45,314,980	$ 45,314,980	$ 46,221,279	$ 46,221,279	$ 47,145,705	$ 47,145,705	$ 48,088,619	$ 48,088,619
Cumulative Assessed Value																
Residential @ 7.20% RAR			7.20%			2,151,413	2,194,441	2,194,441	2,238,330	2,238,330	2,283,096	2,283,096	2,328,758	2,328,758	2,375,333	2,375,333
Commercial @ 29%			29%			3,965,638	4,044,951	4,044,951	4,125,850	4,125,850	4,208,367	4,208,367	4,292,534	4,292,534	4,378,385	4,378,385
Total Cumulative Assessed Value						$ 6,117,051	$ 6,239,392	$ 6,239,392	$ 6,364,180	$ 6,364,180	$ 6,491,463	$ 6,491,463	$ 6,621,292	$ 6,621,292	$ 6,753,718	$ 6,753,718
Maximum Mill Levy Available for Debt Service			20.00			20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Property Tax Available @ Max Mill Levy						$ 122,341	$ 124,788	$ 124,788	$ 127,284	$ 127,284	$ 129,829	$ 129,829	$ 132,426	$ 132,426	$ 135,074	$ 135,074
Specific Ownership Taxes (est. @ 8.5% of Property Taxes)			8.5%			10,399	10,607	10,607	10,819	10,819	11,035	11,035	11,256	11,256	11,481	11,481
Total Pledged Revenue						$ 132,740	$ 135,395	$ 135,395	$ 138,103	$ 138,103	$ 140,865	$ 140,865	$ 143,682	$ 143,682	$ 146,556	$ 146,556
Total Debt Service 2018 Loan (see below)						$ 94,890	$ 94,933	$ 101,513	$ 101,348	$ 101,130	$ 100,859	$ 100,636	$ 100,452	$ 100,103	$ 99,893	$ 99,610
Excess Revenue (Available for any Lodgers Fee shortfall)						$ 37,850	$ 40,462	$ 33,881	$ 36,755	$ 36,973	$ 40,006	$ 40,229	$ 43,230	$ 43,579	$ 46,662	$ 46,946
Debt Service Coverage @ Max Mill Levy						1.40x	1.43x	1.33x	1.36x	1.37x	1.40x	1.40x	1.43x	1.44x	1.47x	1.47x
Actual Mill Levy Required for Debt Service (Net of SOT)						14.2	13.9	14.9	14.6	14.5	14.2	14.2	13.9	13.8	13.5	13.5
DEBT SERVICE DETAIL - 2018 LOAN:																
Tax-Exempt Loan		$ 995,000														
Interest (4.68% thru Loan Term; 5.5% thereafter)			4.68%	5.50%		38,505	37,302	42,358	40,808	39,184	37,483	35,701	33,834	31,879	29,831	27,686
Less: Capitalized Interest		$ 73,490				-	-	-	-	-	-	-	-	-	-	-
Principal						25,691	26,911	28,189	29,527	30,929	32,398	33,936	35,548	37,236	39,004	40,856
Reserve Fund Earnings		64,000		0.25%		(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)
Taxable Loan		$ 420,000														
Interest (5.92% thru Loan Term; 6.0% thereafter)			5.92%	6.00%		21,232	20,657	20,304	19,650	18,954	18,216	17,436	16,608	15,726	14,796	13,806
Less: Capitalized Interest		$ 39,279				-	-	-	-	-	-	-	-	-	-	-
Principal						9,700	10,300	10,900	11,600	12,300	13,000	13,800	14,700	15,500	16,500	17,500
Reserve Fund Earnings		31,000		0.25%		(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)
Total Debt Service						$ 94,890	$ 94,933	$ 101,513	$ 101,348	$ 101,130	$ 100,859	$ 100,636	$ 100,452	$ 100,103	$ 99,893	$ 99,610
Unpaid Principal Balance																
Tax-Exempt Loan						$ 797,058	$ 770,147	$ 741,958	$ 712,431	$ 681,501	$ 649,103	$ 615,167	$ 579,619	$ 542,384	$ 503,380	$ 462,524
Taxable Loan						348,700	338,400	327,500	315,900	303,600	290,600	276,800	262,100	246,600	230,100	212,600
Total Unpaid Principal Balance						$ 1,145,758	$ 1,108,547	$ 1,069,458	$ 1,028,331	$ 985,101	$ 939,703	$ 891,967	$ 841,719	$ 788,984	$ 733,480	$ 675,124

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FOUNDRY LOEVELAND METROPOLITAN DISTRICT FULL GROWTH MODEL (Developer Projections)				Construction Year -->	2038	2039	2040	2041	2042	2043	2044	2045	2046
				Assessed Year -->	2039	2040	2041	2042	2043	2044	2045	2046	2047
				Collection Year -->	2040	2041	2042	2043	2044	2045	2046	2047	2048
Absorption Summary	**Units**	**Comm SF**	**Value/SF**										
Cleveland Building													
Residential Apartments	99	91,031	$195.00		-	-	-	-	-	-	-	-	-
Retail		7,362	$100.00		-	-	-	-	-	-	-	-	-
Lincoln Building													
Residential Apartments	56	50,534	$195.00		-	-	-	-	-	-	-	-	-
Retail		8,191	$100.00		-	-	-	-	-	-	-	-	-
320 N. Cleveland Building		6,000	$100.00		-	-	-	-	-	-	-	-	-
TownPlace Suites Hotel	102	62,910	$123.00		-	-	-	-	-	-	-	-	-
Movie Theater		27,400	$100.00		-	-	-	-	-	-	-	-	-
Market Value - New Construction													
Residential					-	-	-	-	-	-	-	-	-
Commercial					-	-	-	-	-	-	-	-	-
Market Value - Bi-Annual Reassessment													
Residential			2%		659,815	-	673,011	-	686,471	-	700,201	-	714,205
Commercial			2%		301,958	-	307,997	-	314,157	-	320,440	-	326,849
Cumulative Market Value													
Residential					$ 33,650,554	$ 33,650,554	$ 34,323,565	$ 34,323,565	$ 35,010,037	$ 35,010,037	$ 35,710,237	$ 35,710,237	$ 36,424,442
Commercial					15,399,837	15,399,837	15,707,834	15,707,834	16,021,990	16,021,990	16,342,430	16,342,430	16,669,279
Total Cumulative Market Value					$ 49,050,391	$ 49,050,391	$ 50,031,399	$ 50,031,399	$ 51,032,027	$ 51,032,027	$ 52,052,668	$ 52,052,668	$ 53,093,721
Cumulative Assessed Value													
Residential @ 7.20% RAR			7.20%		2,422,840	2,422,840	2,471,297	2,471,297	2,520,723	2,520,723	2,571,137	2,571,137	2,622,560
Commercial @ 29%			29%		4,465,953	4,465,953	4,555,272	4,555,272	4,646,377	4,646,377	4,739,305	4,739,305	4,834,091
Total Cumulative Assessed Value					$ 6,888,793	$ 6,888,793	$ 7,026,568	$ 7,026,568	$ 7,167,100	$ 7,167,100	$ 7,310,442	$ 7,310,442	$ 7,456,651
Maximum Mill Levy Available for Debt Service			20.00		20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Property Tax Available @ Max Mill Levy					$ 137,776	$ 137,776	$ 140,531	$ 140,531	$ 143,342	$ 143,342	$ 146,209	$ 146,209	$ 149,133
Specific Ownership Taxes (est. @ 8.5% of Property Taxes)			8.5%		11,711	11,711	11,945	11,945	12,184	12,184	12,428	12,428	12,676
Total Pledged Revenue					$ 149,487	$ 149,487	$ 152,477	$ 152,477	$ 155,526	$ 155,526	$ 158,637	$ 158,637	$ 161,809
Total Debt Service 2018 Loan (see below)					$ 99,253	$ 98,921	$ 98,608	$ 98,207	$ 97,917	$ 97,526	$ 97,132	$ 96,629	$ 91,616
Excess Revenue (Available for any Lodgers Fee shortfall)					$ 50,234	$ 50,566	$ 53,868	$ 54,269	$ 57,609	$ 58,000	$ 61,504	$ 62,007	$ 70,193
Debt Service Coverage @ Max Mill Levy					1.51x	1.51x	1.55x	1.55x	1.59x	1.59x	1.63x	1.64x	1.77x
Actual Mill Levy Required for Debt Service (Net of SOT)					13.2	13.1	12.8	12.8	12.5	12.5	12.2	12.1	11.2
DEBT SERVICE DETAIL - 2018 LOAN:													
Tax-Exempt Loan		$ 995,000											
Interest (4.68% thru Loan Term; 5.5% thereafter)		4.68%	5.50%		25,439	23,085	20,620	18,037	15,332	12,498	9,530	6,421	3,164
Less: Capitalized Interest		$ 73,490			-	-	-	-	-	-	-	-	-
Principal					42,796	44,828	46,956	49,186	51,521	53,968	56,530	59,214	57,526
Reserve Fund Earnings		64,000	0.25%		(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)
Taxable Loan		$ 420,000											
Interest (5.92% thru Loan Term; 6.0% thereafter)		5.92%	6.00%		12,756	11,646	10,470	9,222	7,902	6,498	5,010	3,432	1,764
Less: Capitalized Interest		$ 39,279			-	-	-	-	-	-	-	-	-
Principal					18,500	19,600	20,800	22,000	23,400	24,800	26,300	27,800	29,400
Reserve Fund Earnings		31,000	0.25%		(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)
Total Debt Service					$ 99,253	$ 98,921	$ 98,608	$ 98,207	$ 97,917	$ 97,526	$ 97,132	$ 96,629	$ 91,616
Unpaid Principal Balance													
Tax-Exempt Loan					$ 419,729	$ 374,901	$ 327,945	$ 278,759	$ 227,238	$ 173,270	$ 116,740	$ 57,526	$ -
Taxable Loan					194,100	174,500	153,700	131,700	108,300	83,500	57,200	29,400	-
Total Unpaid Principal Balance					$ 613,829	$ 549,401	$ 481,645	$ 410,459	$ 335,538	$ 256,770	$ 173,940	$ 86,926	$ -

EXHIBIT B
CITY RESOLUTION AUTHORIZING SECOND AMENDMENT

RESOLUTION #R-12-2019

A RESOLUTION APPROVING A SECOND AMENDMENT TO DISTRICT PLEDGE AGREEMENT BETWEEN THE CITY OF LOVELAND AND THE FOUNDRY LOVELAND METROPOLITAN DISTRICT

WHEREAS, the City of Loveland, Colorado (the "City") is a home rule municipality and political subdivision of the State of Colorado organized and existing under a home rule charter pursuant to Article XX of the Constitution of the State; and

WHEREAS, the City and the District entered into that certain District Pledge Agreement, dated April 26, 2017, as amended by a First Amendment to District Pledge Agreement (collectively, the "Pledge Agreement"); and

WHEREAS, capitalized terms not otherwise defined herein shall have the meaning given them in the Pledge Agreement; and

WHEREAS, pursuant to the Pledge Agreement, the District agreed to impose the District Debt Service Mill Levy in accordance with the provisions of the DRA, and (a) pledge the District Pledged Revenue to the payment of the debt service requirements on the Bonds, or (b) at the written direction of the City, remit all or a portion of the District Pledged Revenue to the City or its designee; and

WHEREAS, the City and Developer entered into the Third Amendment to the DRA, dated June 23, 2017, to address, among other matters, additional funding from the District for the operation and maintenance of the Parking Facility; and

WHEREAS, the City and the District entered into the First Amendment to District Pledge Agreement, dated November 1, 2017 ("First Amendment"), to address, among other things, the District's obligation to impose the District Parking Operations Mill Levy (as defined in the First Amendment) in certain circumstances; and

WHEREAS, pursuant to the First Amendment, to the extent annual revenues from the imposition of 2% of the Lodger's Fee (as defined in the First Amendment) are less than $78,000, the District is required to impose its District Parking Operations Mill Levy in an amount sufficient to make up any difference between $78,000 and such amount generated from the imposition of 2% of the Lodger's Fee (the "Lodger's Fee Shortfall Amount"); and

WHEREAS, the City and Developer entered into the Fourth Amendment to the DRA, dated July 20, 2018, to address, among other matters, additional costs associated with the Project (as defined in the DRA) ("Fourth Amendment"); and

WHEREAS, the Fourth Amendment provides that the Pledge Agreement may be amended to provide that the District shall not be required to impose its District Parking Operations Mill Levy, to the extent the Developer provides a surety bond or other guarantee satisfactory to the City Manager that would fund the Lodger's Fee Shortfall Amount in any year; and

WHEREAS, the Fourth Amendment further provides that any such surety or guarantee shall be set forth in an amendment to the Pledge Agreement and approved by the City Council; and

WHEREAS, the Developer has agreed to provide a surety in the form set forth in **Exhibit "A"** to the Second Amendment (hereinafter defined) to fund any Lodger's Fee Shortfall Amount; and

WHEREAS, the form of such surety has been determined to be satisfactory by the City Manager; and

WHEREAS, on January 15, 2019 the City Council adopted a resolution authorizing the issuance of debt by the District, in one or more series, as described in and subject to, the provisions of such resolution; and

WHEREAS, the District intends to enter into a loan with Compass Bank (the "2019 Compass Loan") in accordance with the parameters described in **Exhibit "B"** attached to the Second Amendment; and

WHEREAS, as provided in Pledge Agreement Section 17.f., the Pledge Agreement may only be amended or supplemented in writing by an instrument executed by the Parties thereto, and to the extent that the Parking Facility constitutes Leased Property under the Site Lease, the Pledge Agreement shall not be subject to amendment without the prior written consent of the Trustee and the Initial Purchaser; and

WHEREAS, as of the date of the expected execution of the Second Amendment, the Parking Facility will not constitute Leased Property under the Site Lease; and

WHEREAS, the City and the District desire to amend the Pledge Agreement pursuant to the Second Amendment to provide that the District shall not be required to impose its District Parking Operations Mill Levy, based on the provision, by the Developer, of the surety attached hereto as **Exhibit "A"**, and to make additional amendments to the Pledge Agreement related to the Developer's provision of such surety and the 2019 Compass Loan; and

WHEREAS, the City Council has determined and hereby determines that it is necessary, desirable and in the best interests of the City to enter into an amendment to the Pledge Agreement in substantially the form of the Second Amendment to District Pledge Agreement (the "Second Amendment") attached hereto as **Exhibit "A"** and incorporated by reference.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LOVELAND, COLORADO:

Section 1. The foregoing recitals are incorporated herein by reference and adopted as findings and determinations of the City Council.

Section 2. The Second Amendment is hereby approved in substantially the form on file with the City, and the City Council hereby specifically approves the form of the surety to be

provided by the Developer, which is attached as **Exhibit "A"** to the Second Amendment. The City Manager is authorized, following consultation with the City Attorney, to modify the Second Amendment in form or substance as deemed necessary to effectuate the purposes of this Resolution or to protect the interests of the City.

Section 3. The City Manager and the City Clerk are hereby authorized and directed to execute the Second Amendment on behalf of the City. The execution of the Second Amendment by the appropriate officers of the City herein authorized shall be conclusive evidence of the approval by the City of the Second Amendment in accordance with the terms hereof.

Section 4. The Mayor, the City Clerk, the City Manager, the Director of Finance, the Executive Fiscal Advisor, the City Attorney, and other officers and employees of the City are hereby independently authorized and directed to take all action necessary or appropriate to execute and deliver the Second Amendment, and to otherwise effect the provisions of this Resolution and the Pledge Agreement, as amended. The execution of any document or instrument by the appropriate officers of the City herein authorized shall be conclusive evidence of the approval by the City of such agreement, document or instrument in accordance with the terms hereof.

Section 5. This Resolution shall be effective as of the date of its adoption.

ADOPTED this 15th day of January, 2019.

Jacki Marsh, Mayor

ATTEST:

CITY OF LOVELAND SEAL COLORADO

City Clerk

APPROVED AS TO FORM:

City Attorney

SECOND AMENDMENT TO
DISTRICT PLEDGE AGREEMENT

This SECOND AMENDMENT TO DISTRICT PLEDGE AGREEMENT (this "Second Amendment"), is made and entered into and dated as of January 15, 2019 between the CITY OF LOVELAND, COLORADO, a municipal corporation duly organized and existing as a home rule city under Article XX of the Constitution of the State of Colorado and under the Charter of the City (the "City") and the FOUNDRY LOVELAND METROPOLITAN DISTRICT, a quasi-municipal corporation and political subdivision of the State of Colorado (the "District").

RECITALS

WHEREAS, the City and the District entered into that certain District Pledge Agreement, dated April 26, 2017, as amended by a First Amendment to District Pledge Agreement (collectively, the "Pledge Agreement"); and

WHEREAS, capitalized terms not otherwise defined herein shall have the meaning given them in the Pledge Agreement; and

WHEREAS, pursuant to the Pledge Agreement, the District agreed to impose the District Debt Service Mill Levy in accordance with the provisions of the DRA, and (a) pledge the District Pledged Revenue to the payment of the debt service requirements on the Bonds, or (b) at the written direction of the City, remit all or a portion of the District Pledged Revenue to the City or its designee; and

WHEREAS, the City and Developer entered into the Third Amendment to the DRA, dated June 23, 2017, to address, among other matters, additional funding from the District for the operation and maintenance of the Parking Facility; and

WHEREAS, the City and the District entered into the First Amendment to District Pledge Agreement, dated November 1, 2017 ("First Amendment"), to address, among other things, the District's obligation to impose the District Parking Operations Mill Levy (as defined in the First Amendment) in certain circumstances; and

WHEREAS, pursuant to the First Amendment, to the extent annual revenues from the imposition of 2% of the Lodger's Fee (as defined in the First Amendment) are less than $78,000, the District is required to impose its District Parking Operations Mill Levy in an amount sufficient to make up any difference between $78,000 and such amount generated from the imposition of 2% of the Lodger's Fee (the "Lodger's Fee Shortfall Amount"); and

WHEREAS, the City and Developer entered into the Fourth Amendment to the DRA, dated July 20, 2018, to address, among other matters, additional costs associated with the Project (as defined in the DRA) ("Fourth Amendment"); and

WHEREAS, the Fourth Amendment provides that the Pledge Agreement may be amended to provide that the District shall not be required to impose its District Parking

Operations Mill Levy, to the extent the Developer provides a surety bond or other guarantee satisfactory to the City Manager that would fund the Lodger's Fee Shortfall Amount in any year; and

WHEREAS, the Fourth Amendment further provides that any such surety or guarantee shall be set forth in an amendment to the Pledge Agreement and approved by the City Council; and

WHEREAS, the Developer has agreed to provide surety in the form set forth in **Exhibit "A"**, attached hereto and incorporated herein by this reference, to fund the Lodger's Fee Shortfall Amount in any year; and

WHEREAS, the form of surety attached as **Exhibit "A"** has been determined to be satisfactory by the City Manager; and

WHEREAS, on January 15, 2019 the City Council adopted a resolution authorizing the issuance of debt by the District, in one or more series, as described in and subject to, the provisions of such resolution; and

WHEREAS, the District intends to enter into a loan with Compass Bank (the "2019 Compass Loan") in accordance with the parameters described in **Exhibit "B"**, attached hereto and incorporated herein by this reference; and

WHEREAS, as provided in Pledge Agreement Section 17.f., the Pledge Agreement may only be amended or supplemented in writing by an instrument executed by the Parties thereto, and to the extent that the Parking Facility constitutes Leased Property under the Site Lease, this Pledge Agreement shall not be subject to amendment without the prior written consent of the Trustee and the Initial Purchaser; and

WHEREAS, as of the date of execution and delivery of this Second Amendment, the Parking Facility does not constitute Leased Property under the Site Lease; and

WHEREAS, the City and the District desire to amend the Pledge Agreement pursuant to this Second Amendment to provide that the District shall not be required to impose its District Parking Operations Mill Levy, based on the provision, by the Developer, of surety in the form attached hereto as **Exhibit "A"**, and to make additional amendments to the Pledge Agreement related to the Developer's provision of such surety and the 2019 Compass Loan.

NOW, THEREFORE, for and in consideration of the promises and the mutual covenants and stipulations herein, the parties hereby amend the Pledge Agreement as follows:

1. The Pledge Agreement is hereby amended to add the following Section 3.5(k):

(k) Except as otherwise provided in Section 3.5(l) hereof, the District shall have no obligation to impose its District Parking Operations Mill Levy in any year so long as the Developer has provided surety that is enforceable in such year, in the form attached hereto as **Exhibit "A"**. The form of such surety has been determined to be satisfactory by the City Manager and has been approved by the City Council. Upon the occurrence of a Triggering Event, any amounts due pursuant to such surety shall be payable directly to the Trustee, or its designee.

2. The Pledge Agreement is hereby amended to add the following Section 3.5(l):

(l) In the event that the surety provided by the Developer is not in effect in any year, or a default has occurred thereunder, or such surety does not provide sufficient funds to cover the entire amount of the Lodger's Fee Shortfall Amount in any year, the District shall be obligated to impose its District Parking Operations Mill Levy to fund any such Lodgers Fee Shortfall Amount, provided that the District's obligation to impose such mill levy shall be subordinate to the obligation of the District to impose an ad valorem tax to meet its obligations pursuant to the 2019 Compass Loan.

3. The Pledge Agreement is hereby amended to replace the definition of District Debt Service Mill Levy with the following:

"**District Debt Service Mill Levy**" means a property tax imposed by the District in an amount equal to twenty-five (25) mills levied by the District on the taxable property within the District in accordance with the District Pledge Agreement. The District Debt Service Mill Levy rate shall be adjusted as set forth in the Service Plan to take into account legislative or constitutionally imposed adjustments in assessed values or their method of calculation so that, to the extent possible, the revenue produced by such District Debt Service Mill Levy is neither diminished nor enhanced as a result of such changes.

4. This Second Amendment shall be effective only upon the execution by the Developer and delivery to the City, of the surety in the form set forth in **Exhibit "A"** and the delivery of the letter of credit to the City in accordance therewith.

5. Except as otherwise provided herein, the provisions of the Pledge Agreement and First Amendment shall remain in full force and effect.

[Signatures appear on following page.]

IN WITNESS WHEREOF, the City and the District have executed this Second Amendment to Pledge Agreement as of the day and year first above written.

FOUNDRY LOVELAND METROPOLITAN DISTRICT

_____
President

ATTEST:

_____
Secretary

CITY OF LOVELAND, COLORADO

_____
City Manager

(SEAL)

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
City Attorney

EXHIBIT A
TO SECOND AMENDMENT TO DISTRICT PLEDGE AGREEMENT

AGREEMENT REGARDING
LODGING FEE SHORTFALL
WITH IRREVOCABLE LETTER OF CREDIT

THIS AGREEMENT, dated this _____ day of _____, 2019, between the City of Loveland, Colorado, a Municipal Corporation (hereinafter called "City") and The Foundry Loveland, LLC, a Colorado limited liability company (hereinafter called "Developer").

WITNESSETH:

WHEREAS, the City and Developer are parties to that certain Disposition and Redevelopment Agreement dated as of December 13, 2016, as amended by the First Amendment to Disposition and Redevelopment Agreement dated as of March 10, 2017, the Second Amendment to Disposition and Redevelopment Agreement dated as of April 26, 2017, the Third Amendment to Disposition and Redevelopment Agreement dated as of June 23, 2017 (the "Third Amendment"), and the Fourth Amendment to Disposition and Redevelopment Agreement dated as of July 20, 2018 ("Fourth Amendment," collectively, the "DRA"); and

WHEREAS, unless otherwise defined herein, capitalized terms shall have the meaning given to them in the DRA; and

WHEREAS, the Third Amendment provided, in part, that to the extent that the amount of revenues estimated by the Developer to be generated from the imposition of 2% of the Lodger's Fee is less than $78,000 in any year, then the District Pledge Agreement entered into between the City and Foundry Loveland Metropolitan District (the "District") shall require the District to impose a mill levy in an amount sufficient to make up any difference between $78,000 and such estimated amount ("Lodger's Fee Shortfall Amount"); and

WHEREAS, the City and the District entered into a First Amendment to District Pledge Agreement dated November 1, 2017, to address, among other things, the District's obligation to impose the "District Parking Operations Mill Levy" in an amount sufficient to generate revenues in a given year sufficient to make up the Lodger's Fee Shortfall Amount; and

WHEREAS, the Fourth Amendment provided, in part, that the City and the District may amend the District Pledge Agreement to provide that the District shall not be required to impose the District Parking Operations Mill Levy to the extent that the Developer provides a surety bond or other guarantee satisfactory to the City Manager that would fund any Lodger's Fee Shortfall Amount in any year, the form of such surety or guarantee shall be set forth in an amendment and approved by the City Council; and

WHEREAS, the Developer desires to provide an irrevocable letter of credit to the City as surety in lieu of the District imposing a District Parking Operations Mill Levy to make up any

Lodger's Fee Shortfall Amount, and to that end, the District and City have entered into a Second Amendment to the District Pledge Agreement to provide, in part, for the Developer to provide the City with an irrevocable letter of credit as set forth in the Fourth Amendment; and

WHEREAS, the City and the Developer are entering into this Agreement to set forth the terms and conditions for the irrevocable letter of credit to be provided by the Developer.

NOW, THEREFORE, in consideration of the premises, the mutual covenants herein contained, it is agreed as follows:

1. In the event the revenues generated from the imposition of the Lodger's Fee is less than $78,000 in any given year, the Developer shall make up the Lodger's Fee Shortfall Amount in an amount not to exceed $78,000 ("Maximum Lodger's Fee Shortfall Amount"). The Developer will furnish the City a letter of credit from a bank or other financial institution ("Issuer") acceptable to the City, similar in form as attached hereto as Exhibit "A" guaranteeing that funds in the amount of the Maximum Lodger's Fee Shortfall Amount are held by it for the account of the Developer for the purpose of securing Developer's promise to make up any Lodger's Fee Shortfall Amount in any given year. If a Lodger's Fee Shortfall Amount occurs in any given year, the City shall be entitled to draw down such funds under the letter of credit in an amount equal to the Lodger's Fee Shortfall Amount in said year. Upon the occurrence of a "Triggering Event" (as such term is defined in the First Amendment to the District Pledge Agreement), any amounts due under the letter of credit shall be payable directly to the Trustee, or its designee.

Notwithstanding the foregoing, in the event that there is no Lodger's Fee Shortfall Amount for three consecutive calendar years, the City Manager shall meet with a representative of the Developer to discuss reducing the required amount of the letter of credit to an amount less than the Maximum Lodger's Fee Shortfall Amount, and the City Manager shall thereupon be authorized, without further approval by the City Council, to reduce the required letter of credit to an amount deemed necessary by the City Manager to protect the interests of the City. If a Triggering Event has occurred, the City Manager shall not be authorized to reduce the required amount of the letter of credit without the prior written consent of the Trustee and the Initial Purchaser.

2. The Developer shall renew the letter of credit annually, unless the City Manager and the City Council approve a different form of surety or guarantee.

3. In the event that Developer breaches its obligations under this Agreement, the City shall be entitled to direct and consequential monetary damages, equitable relief, including specific performance, and such other remedies at law or in equity as may be available under applicable law. In the event of litigation relating to or arising out of this Agreement, the prevailing party whether plaintiff or defendant shall be entitled to recover its costs and reasonable attorneys' fees from the non-prevailing party.

(REMINDER OF PAGE INTENTIONALLY LEFT BLANK.)

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year first above written.

DEVELOPER:

THE FOUNDRY LOVELAND, LLC,
a Colorado limited liability company

By: BRINKMAN ENTITY MANAGEMENT, LLC,
a Colorado limited liability company, its Manager

By: BRINKMAN REAL ESTATE SERVICES, LLC,
a Colorado limited liability company, its Manager

By: _____
Kevin Brinkman, Manager

STATE OF COLORADO)
) ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____, as Manager of Brinkman Real Estate Services, LLC, as Manager of Brinkman Entity Management, LLC, as Manager of The Foundry Loveland, LLC.

WITNESS my hand and official seal.

My commission expires: _____.

_____
Notary Public

ATTEST

By:_____

Title:_____

CITY OF LOVELAND

By:_____

Title: _____

APPROVED AS TO FORM

_____

City Attorney

Exhibit "A"

INSERT FINANCIAL INSTITUTION NAME & LETTERHEAD

IRREVOCABLE LETTER OF CREDIT NO. insert financial institution LOC number

ISSUE DATE: _____, 2019

APPLICANT: The Foundry Loveland, LLC

BENEFICIARY: City of Loveland
500 East Third Street
Loveland, CO 80537

AMOUNT: $78,000

MATURITY DATE: **Insert date one year from date of issue**

Dear Sir or Madam:

We hereby establish our irrevocable Letter of Credit in your favor in the amount of Seventy-Eight Thousand Dollars ($78,000). The purpose of this Letter of Credit is to secure performance of an Agreement for Lodging Fee Shortfall ("Agreement") entered into between the City and the Applicant.

You are hereby authorized to draw on sight on **insert name of financial institution**, by drafts, up to the aggregate amount of Seventy-Eight Thousand Dollars ($78,000). Such total amount to be drawn shall be equal to the Lodger's Fee Shortfall Amount, as defined in the Agreement.

The sole condition for payment of any draft drawn against this Letter of Credit is that the draft be accompanied by a letter, on the City's letterhead, signed by the City Manager or other City designee to the effect that a Lodger's Fee Shortfall has occurred and the amount drawn down is equal to the Lodger's Fee Shortfall Amount. In the event of wrongful dishonor, we will reimburse the City for all court costs, investigative costs and reasonable attorney fees incurred by the City in enforcing this letter of credit. We further agree that jurisdiction and venue for any legal action enforcing this letter of credit shall be in the District Court of Larimer County, Colorado.

We hereby agree with drawers and endorsers, and bona fide holders of drafts negotiated under this Letter of Credit that the same shall be duly honored upon presentation and delivery of the documents as specified above.

Multiple drafts may be presented.

This Letter of Credit will be automatically renewed annually without amendments as stated in the Agreement, for one year periods from the present, unless Issuer delivers written notice within ninety (90) days prior to any such expiration date to the City of Loveland of its intent not to renew this Letter of Credit. Any such notice shall be in writing and shall be delivered with an acknowledged receipt, either in hand or by certified mail. Prior to any renewal,

This Letter of Credit is not transferable, except that upon the occurrence of a Triggering Event, this Letter of Credit shall be payable directly to the Trustee, or its designee.

This Letter of Credit sets forth in full our understanding, and such undertaking shall not in anyway be modified, amended, amplified, or limited by reference to any document, instrument or agreement referred to herein, except for such certificate and draft(s) referred to herein; and any such reference shall not be deemed to incorporate herein by reference any document, instrument, or agreement except for such certificate and draft(s).

Except so far as otherwise expressly stated herein, this Letter of Credit shall be subject to Article 5 of the State of Colorado Uniform Commercial Code (UCC) and the Uniform Customs and Practice for Documentary Credits (1993 Revision), International Chamber of Commerce Publication No. 500 (UCPDC). To the extent of any conflict between the UCC and the UCPDC, the UCC shall control.

Signed this _____ day of_____, 20__ on behalf of **insert name of financial institution.**

_____
Name, Title
Name of financial institution

On behalf of The Foundry Loveland, LLC, I hereby authorize **insert name of financial institution** to pay the City of Loveland (or, upon the occurrence of a Triggering Event, to pay to the Trustee or its designee), all, or a portion of this Letter of Credit upon receipt by **insert name of financial institution** of the letter described in paragraph 3 above, and waive any claims or defenses which I may have to the payment to the City of Loveland by **insert name of financial institution.**

_____
Name, Title
Authorized Agent of The Foundry Loveland, LLC

EXHIBIT B
TO SECOND AMENDMENT TO DISTRICT PLEDGE AGREEMENT

2019 Compass Loan Parameters

Sources		Uses	
Loan Proceeds		Payoff Outstanding Developer Loan	$ 800,000
Tax-Exempt Loan	$ 995,000	Capitalized Interest Thru/Including 12/1/19 (est)	
Taxable Loan	420,000	Tax-Exempt Loan	74,000
		Taxable Loan	39,000
		Debt Service Reserve Fund (MADS)	
		Tax-Exempt Loan	64,000
		Taxable Loan	31,000
		Deposit to Project Fund	350,000
		Cost of Issuance	51,000
		Contingency	6,000
Total Sources	$1,415,000	Total Uses	$ 1,415,000

CONFIDENTIAL

FOUNDRY LOEVELAND METROPOLITAN DISTRICT FULL GROWTH MODEL (Developer Projections)	Units	Comm SF	Value/SF	Construction Year –> Assessed Year –> Collection Year –>	2016 2017 * 2018	2017 2018** 2019	2018 2019 2020	2019 2020 2021	2020 2021 2022	2021 2022 2023	2022 2023 2024	2023 2024 2025	2024 2025 2026	2025 2026 2027	2026 2027 2028
Absorption Summary															
Cleveland Building															
Residential Apartments	99	91,031	$195.00		-	-	$ 17,751,045	-	-	-	-	-	-	-	-
Retail		7,362	$100.00		-	-	736,200	-	-	-	-	-	-	-	-
Lincoln Building															
Residential Apartments	56	50,534	$195.00		-	-	9,854,130	-	-	-	-	-	-	-	-
Retail		8,191	$100.00		-	-	819,100	-	-	-	-	-	-	-	-
320 N. Cleveland Building		6,000	$100.00		-	-	-	600,000	-	-	-	-	-	-	-
TownPlace Suites Hotel	102	62,910	$123.00		-	-	-	7,737,930	-	-	-	-	-	-	-
Movie Theater		27,400	$100.00		-	-	-	2,740,000	-	-	-	-	-	-	-
Market Value - New Construction															
Residential					-	-	27,605,175	-	-	-	-	-	-	-	-
Commercial					-	-	1,555,300	11,077,930	-	-	-	-	-	-	-
Market Value - Bi-Annual Reassessment															
Residential			2%		-	-	-	-	552,104	-	563,146	-	574,408	-	585,897
Commercial			2%		-	-	-	-	252,665	-	257,718	-	262,872	-	268,130
Cumulative Market Value															
Residential					$ -	$ -	$ 27,605,175	$ 27,605,175	$ 28,157,279	$ 28,157,279	$ 28,720,424	$ 28,720,424	$ 29,294,833	$ 29,294,833	$ 29,880,729
Commercial					88,406.90	3,418,860	1,555,300	12,633,230	12,885,895	12,885,895	13,143,612	13,143,612	13,406,485	13,406,485	13,674,614
Total Cumulative Market Value					$ 88,407	$ 3,418,860	$ 29,160,475	$ 40,238,405	$ 41,043,173	$ 41,043,173	$ 41,864,037	$ 41,864,037	$ 42,701,317	$ 42,701,317	$ 43,555,344
Cumulative Assessed Value															
Residential @ 7.20% RAR			7.20%		-	-	1,987,573	1,987,573	2,027,324	2,027,324	2,067,871	2,067,871	2,109,228	2,109,228	2,151,413
Commercial @ 29%			29%		25,638	441,541.00	451,037	3,663,637	3,736,909	3,736,909	3,811,648	3,811,648	3,887,881	3,887,881	3,965,638
Total Cumulative Assessed Value					$ 25,638	$ 441,541	$ 2,438,610	$ 5,651,209	$ 5,764,233	$ 5,764,233	$ 5,879,518	$ 5,879,518	$ 5,997,109	$ 5,997,109	$ 6,117,051
Maximum Mill Levy Available for Debt Service			20.00		20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Property Tax Available @ Max Mill Levy					$ 513	$ 8,831	$ 48,772	$ 113,024	$ 115,285	$ 115,285	$ 117,590	$ 117,590	$ 119,942	$ 119,942	$ 122,341
Specific Ownership Taxes (est. @ 8.5% of Property Taxes)			8.5%		44	751	4,146	9,607	9,799	9,799	9,995	9,995	10,195	10,195	10,399
Total Pledged Revenue					$ 556	$ 9,581	$ 52,918	$ 122,631	$ 125,084	$ 125,084	$ 127,586	$ 127,586	$ 130,137	$ 130,137	$ 132,740
Total Debt Service 2018 Loan (see below)					$ -	$ -	$ 41,105	$ 94,766	$ 94,816	$ 94,844	$ 94,849	$ 94,830	$ 94,888	$ 94,918	$ 94,918
Excess Revenue [Available for any Lodgers Fee shortfall]					$ 556	$ 9,581	$ 11,813	$ 27,866	$ 30,267	$ 30,240	$ 32,737	$ 32,756	$ 35,249	$ 35,219	$ 37,822
Debt Service Coverage @ Max Mill Levy					n/a	n/a	1.29x	1.29x	1.32x	1.32x	1.35x	1.35x	1.37x	1.37x	1.40x
Actual Mill Levy Required for Debt Service (Net of SOT)					n/a	n/a	15.4	15.3	15.1	15.1	14.8	14.8	14.5	14.5	14.2
DEBT SERVICE DETAIL - 2018 LOAN:															
Tax-Exempt Loan		$ 995,000													
Interest (4.68% thru Loan Term; 5.5% thereafter)		4.68%	5.50%		3,881	46,566	46,566	46,355	45,526	44,657	43,747	42,793	41,794	40,748	39,653
Less: Capitalized Interest		$ 73,490			(3,881)	(46,406)	(23,203)	-	-	-	-	-	-	-	-
Principal					-	-	4,500	17,726	18,568	19,449	20,373	21,340	22,353	23,415	24,527
Reserve Fund Earnings		64,000	0.25%		-	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)
Taxable Loan		$ 420,000													
Interest (5.92% thru Loan Term; 6.0% thereafter)		5.92%	6.00%		2,073	24,881	24,881	24,822	24,460	24,075	23,667	23,234	22,778	22,292	21,777
Less: Capitalized Interest		$ 39,279			(2,073)	(24,804)	(12,402)	-	-	-	-	-	-	-	-
Principal							1,000	6,100	6,500	6,900	7,300	7,700	8,200	8,700	9,200
Reserve Fund Earnings		31,000	0.25%		-	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)
Total Debt Service					$ -	$ -	$ 41,105	$ 94,766	$ 94,816	$ 94,844	$ 94,849	$ 94,830	$ 94,888	$ 94,918	$ 94,918
Unpaid Principal Balance															
Tax-Exempt Loan					$ 995,000	$ 995,000	$ 990,500	$ 972,774	$ 954,206	$ 934,757	$ 914,384	$ 893,044	$ 870,691	$ 847,276	$ 822,749
Taxable Loan					420,000	420,000	419,000	412,900	406,400	399,500	392,200	384,500	376,300	367,600	358,400
Total Unpaid Principal Balance					$ 1,415,000	$ 1,415,000	$ 1,409,500	$ 1,385,674	$ 1,360,606	$ 1,334,257	$ 1,306,584	$ 1,277,544	$ 1,246,991	$ 1,214,876	$ 1,181,149

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FOUNDRY LOEVELAND METROPOLITAN DISTRICT FULL GROWTH MODEL (Developer Projections)				Construction Year -->	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
				Assessed Year -->	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
				Collection Year -->	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Absorption Summary	**Units**	**Comm SF**	**Value/SF**												
Cleveland Building															
Residential Apartments	99	91,031	$195.00		-	-	-	-	-	-	-	-	-	-	-
Retail		7,362	$100.00		-	-	-	-	-	-	-	-	-	-	-
Lincoln Building															
Residential Apartments	56	50,534	$195.00		-	-	-	-	-	-	-	-	-	-	-
Retail		8,191	$100.00		-	-	-	-	-	-	-	-	-	-	-
320 N. Cleveland Building		6,000	$100.00		-	-	-	-	-	-	-	-	-	-	-
TownPlace Suites Hotel	102	62,910	$123.00		-	-	-	-	-	-	-	-	-	-	-
Movie Theater		27,400	$100.00		-	-	-	-	-	-	-	-	-	-	-
Market Value - New Construction															
Residential					-	-	-	-	-	-	-	-	-	-	-
Commercial					-	-	-	-	-	-	-	-	-	-	-
Market Value - Bi-Annual Reassessment															
Residential			2%		-	597,615	-	609,567	-	621,758	-	634,193	-	646,877	-
Commercial			2%		-	273,492	-	278,962	-	284,541	-	290,232	-	296,037	-
Cumulative Market Value															
Residential					$ 29,880,729	$ 30,478,344	$ 30,478,344	$ 31,087,911	$ 31,087,911	$ 31,709,669	$ 31,709,669	$ 32,343,862	$ 32,343,862	$ 32,990,739	$ 32,990,739
Commercial					13,674,614	13,948,107	13,948,107	14,227,069	14,227,069	14,511,610	14,511,610	14,801,842	14,801,842	15,097,879	15,097,879
Total Cumulative Market Value					$43,555,344	$44,426,451	$44,426,451	$45,314,980	$45,314,980	$46,221,279	$46,221,279	$47,145,705	$47,145,705	$48,088,619	$48,088,619
Cumulative Assessed Value															
Residential @ 7.20% RAR			7.20%		2,151,413	2,194,441	2,194,441	2,238,330	2,238,330	2,283,096	2,283,096	2,328,758	2,328,758	2,375,333	2,375,333
Commercial @ 29%			29%		3,965,638	4,044,951	4,044,951	4,125,850	4,125,850	4,208,367	4,208,367	4,292,534	4,292,534	4,378,385	4,378,385
Total Cumulative Assessed Value					$ 6,117,051	$ 6,239,392	$ 6,239,392	$ 6,364,180	$ 6,364,180	$ 6,491,463	$ 6,491,463	$ 6,621,292	$ 6,621,292	$ 6,753,718	$ 6,753,718
Maximum Mill Levy Available for Debt Service			20.00		20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Property Tax Available @ Max Mill Levy					$ 122,341	$ 124,788	$ 124,788	$ 127,284	$ 127,284	$ 129,829	$ 129,829	$ 132,426	$ 132,426	$ 135,074	$ 135,074
Specific Ownership Taxes (est. @ 8.5% of Property Taxes)			8.5%		10,399	10,607	10,607	10,819	10,819	11,035	11,035	11,256	11,256	11,481	11,481
Total Pledged Revenue					$ 132,740	$ 135,395	$ 135,395	$ 138,103	$ 138,103	$ 140,865	$ 140,865	$ 143,682	$ 143,682	$ 146,556	$ 146,556
Total Debt Service 2018 Loan (see below)					$ 94,890	$ 94,933	$ 101,513	$ 101,348	$ 101,130	$ 100,859	$ 100,636	$ 100,452	$ 100,103	$ 99,893	$ 99,610
Excess Revenue (Available for any Lodgers Fee shortfall)					$ 37,850	$ 40,462	$ 33,881	$ 36,755	$ 36,973	$ 40,006	$ 40,229	$ 43,230	$ 43,579	$ 46,662	$ 46,946
Debt Service Coverage @ Max Mill Levy					1.40x	1.43x	1.33x	1.36x	1.37x	1.40x	1.40x	1.43x	1.44x	1.47x	1.47x
Actual Mill Levy Required for Debt Service (Net of SOT)					14.2	13.9	14.9	14.6	14.5	14.2	14.2	13.9	13.8	13.5	13.5
DEBT SERVICE DETAIL - 2018 LOAN:															
Tax-Exempt Loan		$ 995,000													
Interest (4.68% thru Loan Term; 5.5% thereafter)		4.68%	5.50%		38,505	37,302	42,358	40,808	39,184	37,483	35,701	33,834	31,879	29,831	27,686
Less: Capitalized Interest		$ 73,490			-	-	-	-	-	-	-	-	-	-	-
Principal					25,691	26,911	28,189	29,527	30,929	32,398	33,936	35,548	37,236	39,004	40,856
Reserve Fund Earnings		64,000	0.25%		(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)
Taxable Loan		$ 420,000													
Interest (5.92% thru Loan Term; 6.0% thereafter)		5.92%	6.00%		21,232	20,657	20,304	19,650	18,954	18,216	17,436	16,608	15,726	14,796	13,806
Less: Capitalized Interest		$ 39,279			-	-	-	-	-	-	-	-	-	-	-
Principal					9,700	10,300	10,900	11,600	12,300	13,000	13,800	14,700	15,500	16,500	17,500
Reserve Fund Earnings		31,000	0.25%		(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)
Total Debt Service					$ 94,890	$ 94,933	$ 101,513	$ 101,348	$ 101,130	$ 100,859	$ 100,636	$ 100,452	$ 100,103	$ 99,893	$ 99,610
Unpaid Principal Balance															
Tax-Exempt Loan					$ 797,058	$ 770,147	$ 741,958	$ 712,431	$ 681,501	$ 649,103	$ 615,167	$ 579,619	$ 542,384	$ 503,380	$ 462,524
Taxable Loan					348,700	338,400	327,500	315,900	303,600	290,600	276,800	262,100	246,600	230,100	212,600
Total Unpaid Principal Balance					$ 1,145,758	$ 1,108,547	$ 1,069,458	$ 1,028,331	$ 985,101	$ 939,703	$ 891,967	$ 841,719	$ 788,984	$ 733,480	$ 675,124

CONFIDENTIAL

FOUNDRY LOEVELAND METROPOLITAN DISTRICT FULL GROWTH MODEL (Developer Projections)	Units	Comm SF	Value/SF		Construction Year –> Assessed Year –> Collection Year –>	2038 2039 2040	2039 2040 2041	2040 2041 2042	2041 2042 2043	2042 2043 2044	2043 2044 2045	2044 2045 2046	2045 2046 2047	2046 2047 2048
Absorption Summary														
Cleveland Building														
Residential Apartments	99	91,031	$195.00			-	-	-	-	-	-	-	-	-
Retail		7,362	$100.00			-	-	-	-	-	-	-	-	-
Lincoln Building														
Residential Apartments	56	50,534	$195.00			-	-	-	-	-	-	-	-	-
Retail		8,191	$100.00			-	-	-	-	-	-	-	-	-
320 N. Cleveland Building		6,000	$100.00			-	-	-	-	-	-	-	-	-
TownPlace Suites Hotel	102	62,910	$123.00			-	-	-	-	-	-	-	-	-
Movie Theater		27,400	$100.00			-	-	-	-	-	-	-	-	-
Market Value - New Construction														
Residential						-	-	-	-	-	-	-	-	-
Commercial						-	-	-	-	-	-	-	-	-
Market Value - Bi-Annual Reassessment														
Residential			2%			659,815	-	673,011	-	686,471	-	700,201	-	714,205
Commercial			2%			301,958	-	307,997	-	314,157	-	320,440	-	326,849
Cumulative Market Value														
Residential						$ 33,650,554	$ 33,650,554	$ 34,323,565	$ 34,323,565	$ 35,010,037	$ 35,010,037	$ 35,710,237	$ 35,710,237	$ 36,424,442
Commercial						15,399,837	15,399,837	15,707,834	15,707,834	16,021,990	16,021,990	16,342,430	16,342,430	16,669,279
Total Cumulative Market Value						$ 49,050,391	$ 49,050,391	$ 50,031,399	$ 50,031,399	$ 51,032,027	$ 51,032,027	$ 52,052,668	$ 52,052,668	$ 53,093,721
Cumulative Assessed Value														
Residential @ 7.20% RAR			7.20%			2,422,840	2,422,840	2,471,297	2,471,297	2,520,723	2,520,723	2,571,137	2,571,137	2,622,560
Commercial @ 29%			29%			4,465,953	4,465,953	4,555,272	4,555,272	4,646,377	4,646,377	4,739,305	4,739,305	4,834,091
Total Cumulative Assessed Value						$ 6,888,793	$ 6,888,793	$ 7,026,568	$ 7,026,568	$ 7,167,100	$ 7,167,100	$ 7,310,442	$ 7,310,442	$ 7,456,651
Maximum Mill Levy Available for Debt Service			20.00			20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Property Tax Available @ Max Mill Levy						$ 137,776	$ 137,776	$ 140,531	$ 140,531	$ 143,342	$ 143,342	$ 146,209	$ 146,209	$ 149,133
Specific Ownership Taxes (est. @ 8.5% of Property Taxes)			8.5%			11,711	11,711	11,945	11,945	12,184	12,184	12,428	12,428	12,676
Total Pledged Revenue						$ 149,487	$ 149,487	$ 152,477	$ 152,477	$ 155,526	$ 155,526	$ 158,637	$ 158,637	$ 161,809
Total Debt Service 2018 Loan (see below)						$ 99,253	$ 98,921	$ 98,608	$ 98,207	$ 97,917	$ 97,526	$ 97,132	$ 96,629	$ 91,616
Excess Revenue (Available for any Lodgers Fee shortfall)						$ 50,234	$ 50,566	$ 53,868	$ 54,269	$ 57,609	$ 58,000	$ 61,504	$ 62,007	$ 70,193
Debt Service Coverage @ Max Mill Levy						1.51x	1.51x	1.55x	1.55x	1.59x	1.59x	1.63x	1.64x	1.77x
Actual Mill Levy Required for Debt Service (Net of SOT)						13.2	13.1	12.8	12.8	12.5	12.5	12.2	12.1	11.2
DEBT SERVICE DETAIL - 2018 LOAN:														
Tax-Exempt Loan		$ 995,000												
Interest (4.68% thru Loan Term; 5.5% thereafter)		4.68%	5.50%			25,439	23,085	20,620	18,037	15,332	12,498	9,530	6,421	3,164
Less: Capitalized Interest		$ 73,490				-	-	-	-	-	-	-	-	-
Principal						42,796	44,828	46,956	49,186	51,521	53,968	56,530	59,214	57,526
Reserve Fund Earnings		64,000	0.25%			(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)
Taxable Loan		$ 420,000												
Interest (5.92% thru Loan Term; 6.0% thereafter)		5.92%	6.00%			12,756	11,646	10,470	9,222	7,902	6,498	5,010	3,432	1,764
Less: Capitalized Interest		$ 39,279				-	-	-	-	-	-	-	-	-
Principal						18,500	19,600	20,800	22,000	23,400	24,800	26,300	27,800	29,400
Reserve Fund Earnings		31,000	0.25%			(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)
Total Debt Service						$ 99,253	$ 98,921	$ 98,608	$ 98,207	$ 97,917	$ 97,526	$ 97,132	$ 96,629	$ 91,616
Unpaid Principal Balance														
Tax-Exempt Loan						$ 419,729	$ 374,901	$ 327,945	$ 278,759	$ 227,238	$ 173,270	$ 116,740	$ 57,526	$ -
Taxable Loan						194,100	174,500	153,700	131,700	108,300	83,500	57,200	29,400	-
Total Unpaid Principal Balance						$ 613,829	$ 549,401	$ 481,645	$ 410,459	$ 335,538	$ 256,770	$ 173,940	$ 86,926	$ -

EXHIBIT C
CITY RESOLUTION AUTHORIZING COOPERATION AGREEMENT

RESOLUTION #R-38-2017

A RESOLUTION APPROVING A SECOND AMENDMENT TO DISPOSITION AND REDEVELOPMENT AGREEMENT BETWEEN THE CITY OF LOVELAND AND THE FOUNDRY LOVELAND, LLC REGARDING DEVELOPMENT OF THE FOUNDRY PROJECT

WHEREAS, the City is a home rule municipality and political subdivision of the State of Colorado organized and existing under a home rule charter pursuant to Article XX of the Constitution of the State; and

WHEREAS. the City has entered into a Disposition and Redevelopment Agreement, dated December 13. 2016. as amended by the First Amendment to Disposition and Redevelopment Agreement dated as of March 10. 2017 (the "First Amendment" and collectively. the "DRA") with The Foundry Loveland. LLC (the "Developer") pursuant to which the Developer has agreed to acquire. develop. construct and install a project within the City that is known as the Foundry Project (the "Foundry Project"); and

WHEREAS, all capitalized terms used herein and not otherwise defined shall have the meanings set forth in the DRA; and

WHEREAS, as contemplated by Section 13.3 of the DRA. certain Certificates of Participation. Series 2017 have been executed and delivered by the City to finance Eligible Costs in accordance with the DRA, and the Parties now desire to amend the DRA to reflect certain terms and conditions related to the execution and delivery of such Certificates of Participation; and

WHEREAS. the City and the Developer have determined that certain other amendments to the DRA will be mutually beneficial; and

WHEREAS. in order to amend the DRA. the City Council has determined and hereby determines that it is necessary. desirable and in the best interests of the City to enter into an amendment to the DRA in substantially the form of the Second Amendment to Disposition and Redevelopment Agreement (the "Second Amendment") attached hereto as **Exhibit "A"** and incorporated by reference.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LOVELAND, COLORADO:

Section 1. Recitals Incorporated. The foregoing recitals are incorporated herein by reference and adopted as findings and determinations of the City Council.

Section 2. All action heretofore taken (not inconsistent with the provisions of this Resolution) by the City Council and the officers. employees and agents of the City directed toward the redevelopment of the Site. the construction of the Foundry project. and the execution and delivery of the DRA. as amended by the First Amendment and the Second Amendment. are hereby ratified. approved and confirmed.

Section 3. The Second Amendment is hereby approved. The City Manager is authorized. following consultation with the City Attorney. to modify the Second Amendment in

form or substance as deemed necessary to effectuate the purposes of this Resolution or to protect the interests of the City.

Section 4. The City Manager and the City Clerk are hereby authorized and directed to execute the Second Amendment on behalf of the City. The execution of the Second Amendment by the appropriate officers of the City herein authorized shall be conclusive evidence of the approval by the City of the Second Amendment in accordance with the terms hereof.

Section 5. The Mayor, the City Clerk, the City Manager, the Director of Finance, the Executive Fiscal Advisor, the City Attorney, and other officers and employees of the City are hereby independently authorized and directed to take all action necessary or appropriate to execute and deliver the Second Amendment, to facilitate the financing and construction of the Project in accordance with the provisions of the DRA, as amended, and to otherwise effect the provisions of this Resolution and the DRA, as amended, including without limitation, executing, attesting, authenticating and delivering for and on behalf of the City, such agreements, instruments, certificates and opinions as may be required to implement the transactions contemplated hereby and by the DRA, as amended, and to facilitate the substitution of the Parking Facility as the leased property under the Lease (as defined in the Second Amendment) in accordance with the terms and provisions of such Lease. Such agreements, documents or instruments may include, without limitation:

(a) an agreement with the Loveland Urban Renewal Authority relating to the remittance to the City, or its designee, of the sales tax increment revenues and property tax increment revenues from the Project;

(b) the District Pledge Agreement;

(c) an agreement or agreements related to the imposition, collection and remittance of operation and maintenance fees relating to the Parking Facility;

(d) an agreement or agreements relating to the separate ownership structure of a portion of the Parking Facility that is located underground and the mixed-use building that will be located above such underground portion of the Parking Facility, as contemplated by Section 19.1 of the Second Amendment;

(e) a Parking Agreement allocating and designating certain parking spaces for use by the residents of the apartments in the Project, as contemplated by Section 19.13 of the Second Amendment and the provisions of the Lease;

(f) a lease agreement related to 320 North Cleveland, in substantially the form attached as Exhibit 1 to the Second Amendment, with such amendments thereto as shall be approved by the City Manager, after consultation with the City Attorney; and

(g) an intergovernmental agreement with the Developer, the District and such other parties as deemed necessary by the City Manager, relating to the maintenance of the Project and the Public Plaza.

Such agreements or documents shall be in a form approved by the City Manager, after consultation with the City Attorney. The execution of any document or instrument by the appropriate officers of the City herein authorized shall be conclusive evidence of the approval by the City of such agreement, document or instrument in accordance with the terms hereof.

Section 6. This Resolution shall be effective as of the date of its adoption.

ADOPTED this 25th day of April, 2017.

Cecil A. Gutierrez, Mayor

ATTEST:

Beverly Walker, Acting City Clerk

CITY OF LOVELAND SEAL COLORADO

APPROVED AS TO FORM:

Assistant City Attorney

Execution Copy

Exhibit A to Resolution #R-38-2017

SECOND AMENDMENT TO DISPOSITION AND REDEVELOPMENT AGREEMENT

THIS SECOND AMENDMENT TO DISPOSITION AND REDEVELOPMENT AGREEMENT (this "Second Amendment") is entered into to be effective as of April 26, 2017 (the "Effective Date"), between the CITY OF LOVELAND, COLORADO, a Colorado home rule municipality (the "City") and The Foundry Loveland, LLC, a Colorado limited liability company (the "Developer"). The City and the Developer shall be collectively referred to hereafter as "Parties."

RECITALS:

A. The City and Developer are parties to that certain Disposition and Redevelopment Agreement dated as of December 13, 2016, as amended by the First Amendment to Disposition and Redevelopment Agreement dated as of March 10, 2017 (the "First Amendment" and collectively, the "DRA");

B. Capitalized terms that are not defined herein shall have the meanings ascribed to such terms in the DRA;

C. As contemplated by Section 13.3 of the DRA, certain Certificates of Participation, Series 2017 have been executed and delivered by the City to finance Eligible Costs in accordance with the DRA, which Certificates of Participation constitute Bonds for purposes of the DRA, and the Parties now desire to amend the DRA to reflect certain terms and conditions related to the execution and delivery of such Certificates of Participation; and

D. The Parties have determined that certain other amendments to the DRA will be mutually beneficial.

NOW THEREFORE, in consideration of the mutual covenants and promises of the Parties contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Parties, the Parties agree as follows:

AGREEMENT

1. Incorporation of Recitals. The above stated recitals are hereby incorporated as substantive terms of this Second Amendment.

2. Amendments to DRA.

a. Section 1. Definitions. The following definitions shall be added to Section 1:

"Certificates of Participation, Series 2017" means the "Certificates of Participation, Series 2017, Evidencing Proportionate Interests in the Base Rentals and other Revenues" under an annually renewable Lease Purchase Agreement dated as of March 14, 2017, between U.S. Bank National Association, solely in its capacity as trustee under the Indenture, as lessor, and the City of Loveland, Colorado, as lessee" dated as of March 14, 2017, and executed and delivered pursuant to the Indenture.

"Indenture" means the Indenture of Trust, dated as of March 14, 2017, entered into by the Trustee, as the same may be amended or supplemented.

"Initial Purchaser" means Compass Mortgage Corporation, an Alabama corporation, and its successors, as the initial purchaser of all the Certificates of Participation, Series 2017. All references to the Initial Purchaser hereunder shall be applicable for so long as, and only to the extent that, the Initial Purchaser is the sole owner of all outstanding Certificates of Participation, Series 2017. All references herein to the Initial Purchaser shall be of no force and effect in the event that the Initial Purchaser is not the sole owner of all outstanding Certificates of Participation, Series 2017.

"Lease Purchase Agreement" means the Lease Purchase Agreement, dated as of March 14, 2017, between U.S. Bank National Association, solely in its capacity of Trustee under the Indenture, as lessor, and the City, as lessee.

"Site Lease" means the Site and Improvement Lease Agreement, dated as of March 14, 2017, between the City, as lessor, and U.S. Bank National Association, solely in its capacity of Trustee under the Indenture, as lessee.

"Trustee" means U.S. Bank National Association, as trustee under the Indenture, or its successors or assigns.

b. Section 5.3. Section 5.3 is hereby amended by the addition of the following paragraph at the end of such Section:

The Developer acknowledges that certain property within the Site is subject a voluntary clean-up plan ("VCUP") that must be approved by the Colorado Department of Public Health and Environment ("CDPHE") and that, in connection with the VCUP, a portion of the Developer Parcel is expected to become subject to an environmental covenant that will contain certain use restrictions (the "Environmental Covenant") in substantially the form attached hereto as Exhibit 1, provided that such Environmental

Covenant shall be revised as required by CDPHE. Exhibit 1 generally identifies the portion of the Developer Parcel that is expected to be subject to the Environmental Covenant (the "Proposed Covenant Area"). The City, in coordination with CDPHE, shall be responsible for drafting the Environmental Covenant and shall retain responsibility for drafting the final version of the Environmental Covenant after conveyance of the Developer Parcel to Developer; provided, however, that Developer shall be permitted to participate in the negotiation of the Environmental Covenant. Developer agrees to take no action inconsistent with the Environmental Covenant in the Proposed Covenant Area. Upon approval of the final version of the Environmental Covenant by CDPHE, the Developer agrees to record the Environmental Covenant with the Larimer County Clerk and Recorder's Office. In the event the Environmental Covenant materially affects Developer's ability to comply with its obligations under the Agreement including, without limitation, Developer's ability to develop any portion of the Site as contemplated by the Agreement in accordance with the Developer's budget, Developer and City shall enter into an amendment to the Agreement reasonably acceptable to both parties which will provide, in substance, that the Developer will not be in breach of the Agreement due to the Environmental Covenant and the restrictions set forth therein and addressing such other matters as may be reasonably necessary due to the Environmental Covenant.

c. Section 5.4. Section 5.4 is hereby deleted in its entirety and replaced with the following:

Section 5.4 Certificates of Participation, Series 2017. The City hereby certifies that the Certificates of Participation, Series 2017 have been executed and delivered and the net proceeds thereof in the amount of $14,481,856.75 have been remitted to the City, and shall be applied by the City to the payment or reimbursement of Eligible Costs, subject to the terms and provisions of this Agreement.

d. Section 13.2. The last paragraph of Section 13.2 is hereby deleted and replaced with the following:

The District shall enter into the District Pledge Agreement on or prior to May 19, 2017, or the Cap Amount shall be reduced in accordance with Section 15 hereof.

e. Section 13.3. Section 13.3 is hereby amended by the addition of the following paragraphs at the end of such Section:

The Parties hereby acknowledge that the Certificates of Participation, Series 2017 have been executed and delivered and, for purposes of this Agreement, constitute "Bonds" hereunder.

The City hereby directs the Developer to remit, or cause to be remitted, the Developer Pledged Revenues to the City for so long as the Lease remains in full force

and effect, or for so long as any obligations issued to refund the Certificates of Participation, Series 2017, or any other Bonds issued by the City or the Authority remain outstanding.

The District Pledge Agreement shall provide, among other things, that: (a) the District shall impose the District Debt Service Mill Levy for so long as the Lease or Site Lease remain in effect or for so long as any obligations issued to refund the Certificates of Participation, Series 2017 or any other Bonds issued by the City or the Authority remain outstanding, (b) to the extent received by the District, the District shall remit the District Pledged Revenues to the City, or its designee, for so long as the Lease remains in full force and effect or for so long as any obligations issued to refund the Certificates of Participation, Series 2017 or any other Bonds issued by the City or the Authority remain outstanding, (c) to the extent that the Parking Facility constitutes leased property under the Site Lease and the Lease, and in the event that the Lease is terminated and the Site Lease remains in full force and effect, the District shall remit any District Property Tax Revenues received by the District directly to the Trustee, (d) to the extent that the Parking Facility constitutes leased property under the Site Lease, the Trustee and the Initial Purchaser shall be third party beneficiaries under the District Pledge Agreement, and (e) to the extent that the Parking Facility constitutes leased property under the Site Lease, the District Pledge Agreement shall not be subject to amendment without the prior written consent of the Trustee and the Initial Purchaser of the Certificates of Participation, Series 2017. Upon the execution and delivery of the District Pledge Agreement, the District shall cause to be delivered to the City and the Initial Purchaser an opinion from counsel to the District that (i) such agreement is enforceable in accordance with its terms and (ii) the obligation to remit such District Property Tax Revenues to the Trustee in accordance with such agreement has been authorized by the electors of the District and is not subject to annual appropriation by the District. Failure by the District to execute the District Pledge Agreement or deliver the required opinion by May 19, 2017 shall result in the Cap Amount being reduced in accordance with Section 13.2 and Section 15 hereof.

f. Section 14(e). Section 14(e) is hereby deleted and replaced with the following:

(e) The District shall have been organized and created, the Service Plan shall authorize the District to levy the District Debt Service Mill Levy and the District O&M Mill Levy, and the District shall have entered into the District Pledge Agreement with the City pursuant to which the District agrees to levy the District Debt Service Mill Levy and the District O&M Mill Levy, to remit all revenues generated from the District Debt Service Mill Levy that are not Property Tax Increment Revenues to the City or as otherwise directed by the City, and which agreement sets forth the additional provisions required by Section 13.3 hereof. Notwithstanding the foregoing, the District shall not be

obligated to pledge and remit revenues from the District Debt Service Mill Levy in excess of twenty-five (25) mills.

g. Section 17.2. Section 17.2 is hereby deleted in its entirety and replaced with the following:

On or prior to the date of the Closing on the conveyance of the Developer Parcel, the Developer and the City shall enter into a lease agreement related to 320 North Cleveland Avenue in substantially the form attached hereto as Exhibit 2.

h. Section 19.1. Section 19.1 is hereby amended by including the following paragraph at the end of such Section:

A portion of the Parking Facility will be constructed on Lot 1, Block 2 of the Loveland Eleventh Subdivision (the "L1B2 Parcel") as further set forth in the Plat of the subdivision. The Parties hereby acknowledge that the L1B2 Parcel will include a portion of the Parking Facility located underground ("Unit 1") and that a mixed-use building will be located above Unit 1 ("Unit 2" and together with Unit 1, the "Units"). The Parties intend that Unit 1 will be owned by the City and that Unit 2 will be designated for separate ownership and initially owned by the Developer, or its designee. The Parties agree to act in good faith to negotiate and enter into an agreement that will effectuate the separate ownership of Unit 1 and Unit 2 in accordance with the provisions hereof. Unit 2 will be located on top of the cap of Unit 1 and will comprise the L1B2 surface and all improvements or rights to construct improvements above Unit 2 (including, without limitation, the air space above Unit 1). It is the Parties' intent that the horizontal boundary of the Units shall be the property lines of the L1B2 Parcel and the vertical boundary between the Units will be the top of the cap of Unit 1.

The City and the Developer shall act in good faith and use commercially reasonable efforts to agree on substantially final forms of the documents to be executed by the Parties to effectuate the separate ownership of the Units by May 31, 2017. In the event such agreement is not reached by May 31, 2017 the following dates and deadlines set forth in the Agreement shall be extended by one day for each day after May 31, 2017, until agreement on the substantially final forms of the documents is reached:

(i) The City's right to require reconveyance of the Phase Two Parcel in the event that the Construction has not Commenced on a hotel or office building, or other improvement agreed to in writing by the City, on the Phase Two Parcel by December 31, 2018 as set forth in Section 12.8 hereof;

(ii) The 45 day deadline relating to the Commencement of Construction set forth in Section 21.1 and 27(b) of the Agreement; and

(iii) The 18 month deadline to complete construction of Phase One of the Project within 18 months of Commencing Construction, as set forth in Section 21.1.

The Parties further agree that the definition of "Developer Parcel" set forth in the Agreement is hereby amended to include Unit 2 and the definition of "City Parcel" is hereby amended to include Unit 1; provided, however, that the City shall retain ownership of the L1B2 Parcel at Closing until such time as the Units are created. Upon creation of the Units pursuant to the agreement between the Parties, Unit 2 shall be conveyed to the Developer or its designee, as further set forth in such agreement.

i. Section 19.11. Section 19.11 is hereby amended by including the following paragraph at the end of such Section:

The City hereby represents that in connection with the execution and delivery of the Certificates of Participation, Series 2017, it provided the Initial Purchaser with the plans and specifications for the Parking Facility. The City and the Developer acknowledge that the Lease provides that in order for the City to substitute the Parking Facility as leased property under the Lease, that the Parking Facility shall have been built substantially in accordance with the provisions of this Agreement and the plans and specification provided to the Initial Purchaser, or as otherwise approved in writing by the Initial Purchaser. The Developer agrees that it shall construct the Parking Facility substantially in accordance with the provisions of this Agreement and such plans and specifications provided to the Initial Purchaser by the City, unless otherwise approved in writing by the City and the Initial Purchaser.

j. Section 19.12. Section 19.12 is hereby amended by including the following paragraph at the end of such Section:

The Parties hereby acknowledge that, to the extent that the Parking Facility constitutes leased property under the Lease, the Lease requires that in the event that the Lease is terminated and the Site Lease remains in effect, that all operation and maintenance fees imposed pursuant to this Section 19.12 shall become payable to the Trustee, without further action by the Parties, for so long as the Site Lease remains in effect. Any agreements entered into pursuant to this 19.12 to facilitate the imposition, collection and remittance of the operation and maintenance fees shall include provisions requiring such fees to be remitted directly to the Trustee in the event that (a) the Parking Facility constitutes leased property under the Lease, (b) the Lease is terminated and (c) the Site Lease remains in full force and effect. Such agreements shall provide for the automatic assignment of such fees to the Trustee in such event, and shall also provide that such automatic assignment of the fees to the Trustee may not be revoked without the prior written consent of the Trustee and the Initial Purchaser.

To the extent that the Parking Facility constitutes leased property under the Lease, for so long as the Certificates of Participation, Series 2017 are outstanding or the Site Lease remains in effect, the operation and maintenance fees to be imposed pursuant to this Section 19.12 shall not be reduced without the prior written consent of the Initial Purchaser and the Trustee.

k. Section 19.13. Section 19.13 (which was incorrectly designated in the DRA as Section 19.12 – Parking Facility Operations Plan) is hereby deleted in its entirety and replaced by the following:

Section 19.13. Parking Agreement. On or prior to the date of substantial completion of the Parking Facility, the City shall enter into a Parking Agreement substantially in accordance with this Section 19.13, which may be in the form of a parking covenant recorded in the real estate records. Except as hereinafter provided, the Parking Agreement shall allocate and designate spaces for use by the residents of the apartments in the Project in an amount equal to one space per constructed apartment unit, but in no event more than 155 allocated spaces. The Parking Agreement shall provide that the City shall not impose any fees or charges for the use of these parking spaces by the residents, provided that the Developer shall impose the operation and maintenance fees on such residents in accordance with the terms and provisions of Section 19.12 of this Agreement. The Parking Agreement shall further provide that to the extent that the Parking Facility is leased property under the Lease, and in the event that the Lease is terminated and the Site Lease remains in full force and effect, the Trustee or any purchaser, assignee or sublessee of the Trustee shall not be required to allocate one parking space per constructed apartment unit, but shall be required to allocate one parking space per occupied apartment unit (in an amount not exceeding 155 spaces), at no additional charge to the residents (other than the operation and maintenance fees imposed pursuant to Section 19.12 of this Agreement).

l. Section 21.4. Section 21.4 is hereby amended by including the following sentence at the end of such Section:

Notwithstanding the foregoing prohibitions, the parties recognize that Developer will engage in "pre-leasing" activities prior to issuance of any Certificate of Occupancy for each Phase of the Project and leasing of any part of the Site or the buildings or structures thereon in the ordinary course of business shall not require the City's consent.

m. Section 28.6. The first two sentences of Section 28.6 are hereby deleted in their entirety and replaced by the following:

Notwithstanding anything to the contrary herein, this Agreement shall be binding upon and inure to the benefit of the successors and assigns of City and Developer; provided, however, that except for assignments to Authorized Lenders and as hereafter

provided, Developer shall not, prior to the issuance of the first Certificate of Occupancy for any portion of the Project, assign Developer's rights, benefits and/or obligations pursuant to this Agreement to any party or transfer a controlling interest in Developer without the prior written consent of the City Manager, who shall consult with the City Attorney in determining whether to grant such approval. Any such assignment without the City Manager's prior written consent shall be deemed null and void and without any affect and shall be considered a material default of this Agreement.

3. Conveyance of Phase One Parcel. The Parties agree that Closing on that portion of the Developer Parcel on which Phase One will be constructed (the "Phase One Developer Parcel") may be separated into two or more closings. The Parties agree that the Conditions to Closing on Conveyance of Developer Parcel set forth in Section 8 of this Agreement will be separated so that the conditions in Section 8 of this Agreement will be applicable only to the portions of the Phase One Developer Parcel being conveyed at the applicable Closing.

4. Condition of Phase One Developer Parcel. The Parties agree that any portion of the Phase One Developer Parcel retained by the City after the first conveyance of any portion of the Phase One Developer Parcel to Developer shall be maintained by the City in the same condition (including condition of title) as of such first closing, ordinary wear and tear accepted and subject to the improvements to be constructed thereon pursuant to the Agreement.

5. Amendment to First Amendment. The Parties hereby agree that Section 3 of the First Amendment is hereby deleted in its entirety. The Developer agrees that the Developer Objections set forth in Section 3 of the First Amendment have been resolved to the satisfaction of the Developer pursuant to the provisions set forth in this Second Amendment.

6. Ratification of DRA. The City hereby ratifies, approves and confirms the execution, delivery and due performance of the DRA, as amended by the First Amendment and this Second Amendment.

7. No Further Amendments and Agreements. Except as modified as set forth in the First Amendment and in this Second Amendment, the DRA shall remain in full force and effect.

8. Exhibits. All exhibits attached to this Second Amendment shall be incorporated by reference as it set out herein in full.

9. Counterparts. This Second Amendment may be executed in separate counterparts (including by means of facsimile or electronic mail delivery of a ".pdf" format data file), each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

IN WITNESS WHEREOF, the Parties have entered into this Second Amendment on the date set forth above.

CITY:

CITY OF LOVELAND,
a Colorado home rule municipality

By: _____
Stephen C. Adams, City Manager

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
City Attorney

DEVELOPER:

The Foundry Loveland, LLC,
a Colorado limited liability company

By: Brinkman Entity Management, LLC,
a Colorado limited liability company,
its Manager

By: _____
Kevin Brinkman, Manager

Exhibit 1

(Include Proposed Form of Environmental Covenant)

Exhibit 1 to Second Amendment to Disposition and Redevelopment Agreement - Environmental Covenant

This property is subject to an Environmental Covenant held by the Colorado Department of Public Health and Environment pursuant to section 25-15-321, C.R.S.

ENVIRONMENTAL COVENANT

The Foundry Loveland, LLC ("Foundry") grants an Environmental Covenant ("Covenant") this _____ day of _____, to the Hazardous Materials and Waste Management Division of the Colorado Department of Public Health and the Environment ("the Department") pursuant to section 25-15-321, C.R.S. of the Colorado Hazardous Waste Act, section 25-15-101, *et seq.*, C.R.S.

WHEREAS, Foundry is the owner of certain property commonly referred to as the former Leslie the Cleaner Site, located at 301 North Lincoln Avenue, Loveland, Colorado, 80537, more particularly described in Exhibits A, B, and C attached hereto and incorporated herein by reference as though fully set forth (hereinafter referred to as "the Property"); and

WHEREAS, the Department, which is located at 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530, is authorized to approve Environmental Covenants pursuant to section 25-15-320 of the Colorado Hazardous Waste Act, section 25-15-101, *et seq.* 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530; and

WHEREAS, for purposes of indexing in the County Clerk and Recorder's office Grantor-Grantee index only, Foundry shall be considered the **Grantor**, and the Department shall be considered the **Grantee**. Nothing in the preceding sentence shall be construed to create or transfer any right, title or interest in the Property; and

WHEREAS, pursuant to the Department's August 15, 2011 letter of approval of the City of Loveland, Colorado's ("City's") Voluntary Clean Up Plan for the Leslie the Cleaner Site, which is located at 301 North Lincoln Avenue, the Property is the subject of a voluntary cleanup effort pursuant to the Colorado Voluntary Cleanup and Redevelopment Act, section 25-16-301 to -311, C.R.S; and

WHEREAS, the purpose of this Covenant is to ensure protection of human health and the environment by restricting uses of the Property in limited areas which exhibit residual levels of contamination above regulatory standards that could, if engaged in, lead to adverse impact to human health or the environment; and

WHEREAS, Foundry desires to subject the Property to certain covenants and restrictions as provided in Article 15 of Title 25, Colorado Revised Statutes, which covenants and

restrictions shall burden the Property and bind Foundry and all parties now or subsequently having any right, title or interest in the Property, or any part thereof, their heirs, successors and assigns, and any persons using the land, as described herein, for the benefit of the Department, Foundry, and the City as a third-party beneficiary.

NOW, THEREFORE, Foundry hereby grants this Environmental Covenant to the Department, with the City as a third-party beneficiary, and declares that the Property as described in Exhibit A shall hereinafter be bound by, held, sold, and conveyed subject to the following requirements set forth in paragraph Nos. 1 through 10, below, which shall run with the Property in perpetuity and be binding on Foundry and all parties now or subsequently having any right, title, or interest in the Property, or any part thereof, their heirs, successors, and assigns, and any persons using the land, as described herein. As used in this Environmental Covenant, the term OWNER means the then-current record owner of the Property and, if any, any other person or entity otherwise legally authorized to make decisions regarding the transfer of the Property or placement of encumbrances on the Property, other than by the exercise of eminent domain.

1) [*DRAFT*] Use restrictions The following restrictions shall apply to those parcels shaded in blue within Exhibit B:
   A. No excavation, drilling, grading, digging, tilling or any other soil-disturbing activity is permitted on the Property unless conducted in accordance with the attached Department-approved Materials Management Plan and any amendments thereto, or a remedial decision document. The Materials Management Plan and any amendments thereto are on file at the Department's Records Center.
   B. Groundwater shall not be removed from the Property by well or other means for domestic, agricultural, commercial, or other beneficial use. For the purposes of this restriction, "domestic use" means household or family use, including, but not limited to: drinking, bathing, and gardening. For the purposes of this restriction, "groundwater" means subsurface water in a zone of saturation that is or can be brought to the surface of the ground or to surface waters through wells, springs, seeps, or other means of discharge. This limitation shall not apply to the existing monitoring wells located on the Property and to potential installation of monitoring wells in the future for use solely to obtain groundwater samples for analysis. Actions that may damage or impair the proper functioning of any authorized remedial wells are prohibited. Any person or entity, whether specifically bound to this covenant as an OWNER or third party beneficiary, or any person or entity not specifically bound to this covenant, must comply with the requirements set forth herein, including the requirement to notify the Department and receive approval in writing for any planned or unanticipated actions which may damage or impair the proper functioning of any authorized remedial well associated with this covenant.
   C. Any excavation, grading, or construction activity that may expose groundwater shall be conducted pursuant to the groundwater provisions of the Materials Management

Plan and any amendments thereto, and which are on file at the Department's Records Center and which an initial copy without amendments thereto is provided as Exhibit C to this covenant and incorporated herein by reference.

D. Construction dewatering is permitted in accordance with a construction dewatering permit or in accordance with permissions that may be considered by the local Publically-Owned Treatment Works. Any person applying for a construction dewatering permit on the Property must notify the Water Quality Control Division of the Colorado Department of Public Health and Environment that the groundwater is contaminated, and an environmental covenant has been imposed.

E. Any new construction of enclosed buildings to include uses at grade or below-grade level for residential, childcare, eldercare, or care of the infirm shall include vapor intrusion controls such as a vapor barrier, a sub-slab depressurization system, or passive venting system, as may be appropriate and determined by standard engineering practices.

F. Any modification to enclosed buildings to include residential uses at grade or below grade level shall include vapor intrusion controls as may be appropriate and determined by standard engineering practices.

2) Modifications: This Covenant runs with the land and is perpetual, unless modified or terminated pursuant to this paragraph. OWNER may request that the Department approve a modification or termination of the Covenant. The request shall contain information showing that the proposed modification or termination shall, if implemented, ensure protection of human health and the environment. The Department shall review any submitted information and may request additional information. If the Department determines that the proposal to modify or terminate the Covenant will ensure protection of human health and the environment, it shall approve the proposal. No modification or termination of this Covenant shall be effective unless the Department has approved such modification or termination in writing. Information to support a request for modification or termination may include one or more of the following:

A. a proposal to perform additional remedial work;
B. new information regarding the risks posed by the residual contamination;
C. information demonstrating that residual contamination has diminished;
D. information demonstrating that an engineered feature or structure is no longer necessary;
E. information demonstrating that the proposed modification would not adversely impact the remedy and is protective of human health and the environment; and
F. other appropriate supporting information.

3) Conveyances: OWNER shall notify the Department at least fifteen (15) days in advance of the closing on any proposed sale or other conveyance of any interest in any or all of the Property.

4) Notice to Lessees: OWNER agrees to incorporate either in full or by reference the restrictions of this Covenant in any leases, licenses, or other instruments granting a right to use the Property.

5) Notification for proposed construction and land use: OWNER shall notify the Department simultaneously when submitting any application to a local government for a building permit or change in land use.

6) Inspections: The Department shall have the right of entry to the Property at reasonable times with prior notice for the purpose of determining compliance with the terms of this Covenant.

7) Third Party Beneficiary: The City is a third party beneficiary with the right to enforce the provisions of this Covenant as provided in section 25-15-322, C.R.S.

8) No Liability: The Department does not acquire any liability under State law by virtue of accepting this Covenant, nor does any other named beneficiary of this Covenant acquire any liability under State law by virtue of being such a beneficiary.

9) Enforcement: The Department may enforce the terms of this Covenant pursuant to section 25-15-322, C.R.S. The OWNER and any named beneficiaries of this Covenant may file suit in district court to enjoin actual or threatened violations of this Covenant.

10) OWNER'S Compliance Certification OWNER shall execute and return a certification form provided by the Department, on an annual basis, detailing Owner's compliance, and any lack of compliance, with the terms of this Covenant.

12) Severability. If any part of this Covenant shall be decreed to be invalid by any court of competent jurisdiction, all of the other provisions hereof shall not be affected thereby and shall remain in full force and effect.

12) Notices Any document or communication required under this Covenant shall be sent or directed to:

Hazardous Materials and Waste Management Division
Colorado Department of Public Health and the Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

City of Loveland
City Attorney's Office

Civic Center
500 E. 3rd St., Suite 330
Loveland, CO 80537

The Foundry Loveland, LLC has caused this instrument to be executed this _____ day of _2017

THE FOUNDRY LOVELAND, LLC

By:_____

Title:_____

STATE OF _____)
) ss:
COUNTY OF_____)

The foregoing instrument was acknowledged before me this day of ,
_____ by _____ on behalf of THE FOUNDRY LOVELAND, LLC

_____
Notary Public

_____
Address

_____

My commission expires:_____

Accepted by the Colorado Department of Public Health and Environment this day of
_____, ____.

By:_____

Title:_____

STATE OF _____)
) ss:
COUNTY OF_____)

The foregoing instrument was acknowledged before me this day of ,
_____ by _____ on behalf of the Colorado Department of Public Health and Environment.

_____
Notary Public

_____

Address

_____

My commission expires: _____

EXHIBIT A

(Legal Description)

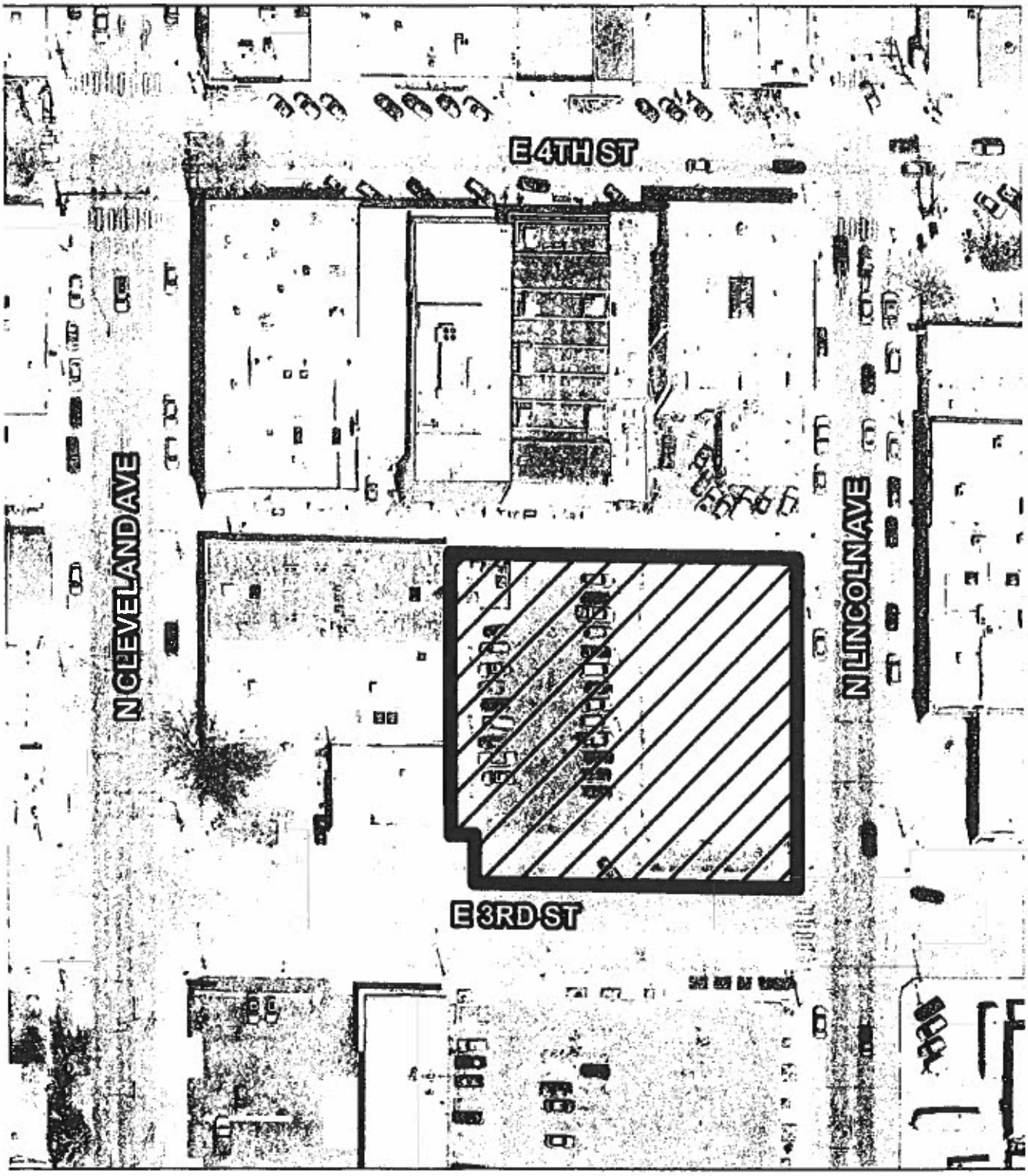
[SEE ATTACHED DRAFT EXHIBIT B MAP– SPECIFIC AREA WILL DEPEND ON CDPHE APPROVAL OF VCUP AMENDMENT]

EXHIBIT B

Covenant Area Map

[SEE ATTACHED DRAFT – SPECIFIC AREA WILL DEPEND ON CDPHE APPROVAL OF VCUP AMENDMENT]

Exhibit B to Environmental Covenant - Leslie The Cleaner Environmental Covenants Boundary



Legend

Leslie The Cleaner- Environmental Covenants Boundary

N

April 11, 2017

EXHIBIT C

Materials Management Plan

[See attachment]

Pinyon Environmental, Inc.
Corporate Headquarters
9100 West 74th Avenue, Suite 200, Lakewood, CO 80232
TEL 303 980-9200 FAX 303 980-1189
www.pinyon-env.com

February 18, 2016
Updated February 23, 2016

Materials Management Plan

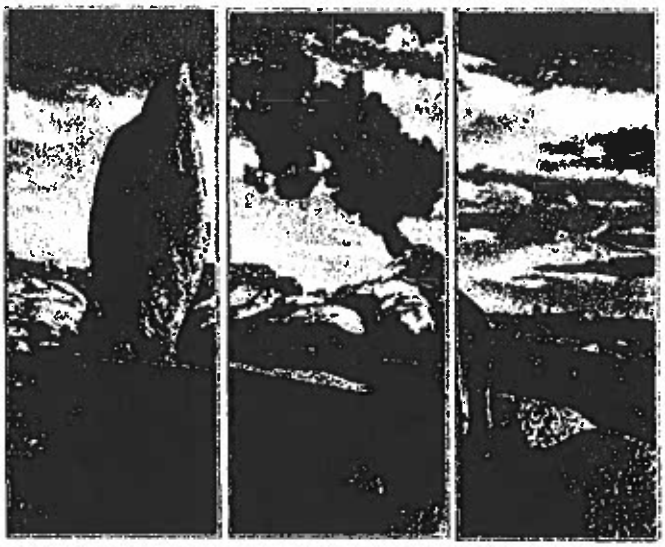
South Catalyst Project
Loveland, Colorado

Prepared For:

City of Loveland
500 East 3rd Street, Suite 300
Loveland, Colorado 80537

Pinyon Project No.:

1/15-1073-01.8000



Pinyon Environmental, Inc.

Corporate Headquarters
6110 West Jewel Avenue, Suite 200, Lakewood, CO 80232
TEL: 303.986.5207 FAX: 303.986.1089
www.pinyonenv.com

February 18, 2016
Updated February 23, 2016

Materials Management Plan

South Catalyst Project
Loveland, Colorado

Prepared For:

City of Loveland
500 East 3rd Street, Suite 300
Loveland, Colorado 80537

Pinyon Project No.:

1/15-1073-01.8000

Prepared by:

Timothy R. Grenier, E.I.T.
Environmental Engineer

Reviewed by:

Karlene R. Thomas, P.E.
Principal

Reviewed by:

Brian R. Partington
Principal

Pinyon

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Figures

Tables

Appendices

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Acronyms

Acronym	Definition
ACM	Asbestos Containing Materials
APEN	Air Pollution Emissions Notice
AQCC	Air Quality Control Commission
CABI	Colorado Asbestos Building Inspector
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CDPS	Colorado Discharge Permit System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGI	Combustible Gas Indicator
CHMM	Certified Hazardous Materials Manager
CIH	Certified Industrial Hygienist
CSP	Certified Safety Professional
DMR	Daily Monitoring Report
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
HASP	Health and Safety Plan
HSO	Health and Safety Officer
LST	Leaking Storage Tank
LUST	Leaking Underground Storage Tank
MMP	Materials Management Plan
NPDES	National Pollutant Discharge Elimination System
OPS	Colorado Department of Oil and Public Safety
OSHA	Occupational Safety and Health Administration

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Acronym	Definition
PAH	Polycyclic Aromatic Hydrocarbons
PAL	Predetermined Action Levels
PCB	Polychlorinated biphenyls
PCE	Tetrachloroethene
PPE	Personal Protective Equipment
PID	Photoionization Detector
PPE	Personal Protection Equipment
PST	Petroleum Storage Tanks
QA	Quality Assurance
RAMP	Remediation Activities Management Plan
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SWMP	Stormwater Management Plan
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbon
UCLM	Upper confidence limit of the mean
UST	Underground Storage Tank
VCUP	Voluntary Clean Up Plan
VOC	Volatile Organic Compounds
WQCC	Water Quality Control Commission
WQCD	Water Quality Control Division

1. Introduction

Pinyon Environmental, Inc. (Pinyon), was retained by the City of Loveland (the "City"), to prepare this Materials Management Plan (MMP) for the South Catalyst Project located between North Cleveland and North Lincoln Avenue, and between East 1st and 4th Street in Loveland, Colorado (the "Site"; Figure 1). The Site encompasses approximately 15 properties which the City has acquired for redevelopment as part of the South Catalyst Project. This MMP has been developed to define how the contractor(s) and/or developer(s), hereafter referred to as the "Contractor," will manage regulated materials at or below the ground surface in the event they are encountered during construction or other development activities.

Regulated materials are defined as the presence or suspected presence of substances which may require management and/or special disposal. These substances may be hazardous as defined by Resource Conservation and Recovery Act (RCRA) regulations or regulated by other laws that would restrict reuse of the substance on site, discharge to groundwater or surface water, and/or require special disposal. Regulated materials may exist on the surface or subsurface, in groundwater or surface water, or on or in structures to be demolished or modified as part of the project activities, and may be mixed with soil, water, building matrices, and/or other waste materials. This MMP does not discuss the management of regulated materials that may be in or on a structure/building.

It is the responsibility of the Contractor to manage all regulated materials, including but not limited to soils, groundwater, surface water, asbestos containing building materials, asbestos in soils, and lead-based paint to prevent exposure to the environment, project personnel and the public, and to prevent impacts of non-impacted areas. This MMP has been prepared to guide work activities to accomplish the above while adhering to the project schedule during construction. Further, this MMP has been prepared to minimize potential delays, and to develop approved standard procedures that will be implemented as needed in the event that regulated materials are encountered during construction. It is the responsibility of the Contractor to follow all appropriate regulations, obtain the proper permits, and utilize field personnel trained to identify potential impacts.

1.1 Purpose of this MMP

When implemented properly, this MMP is intended to provide the Contractor the means and methods to allow work activities to be completed in such a way as to minimize worker exposure to potential regulated materials (RMs), prevent releases to the environment, and provide proper protocol for disposal or appropriate management of impacted materials. Further, this MMP has been prepared to minimize potential delays, and to develop approved standard procedures that will be implemented as needed in the event that potential RMs are encountered during construction. It is the responsibility of the contractor to adhere to the MMP, follow all appropriate regulations, obtain the proper permits and have the trained field personnel to identify potential impacts. The Contractor will analyze and classify waste according to one of the following categories identified in the list below. Soils disturbed during construction must be handled in accordance to the procedures detailed in Section 4. Groundwater, if encountered, must be handled in accordance to the procedures detailed in Section 5.

- Hazardous waste as defined under the RCRA requiring off-site disposal and/or treatment
- Contaminated soils requiring off-site disposal
- Soils to be stockpiled for further characterization
- Soils with concentrations of waste constituents below regulatory concern that can be reused without restriction
- Wastewater requiring off-site disposal and/or treatment
- Impacted surface or groundwater to be held for further characterization

- Asbestos containing material (ACM) discovered during construction or demolition
- Lead-based paint associated with structures, signage, light posts, etc.
- Waste material to be contained for further characterization
- Contaminated groundwater requiring on-site treatment or off-site disposal

1.2 Proposed Action

The Site is bound by the Loveland and Greeley Canal and East 1st Street to the south; the Back Stage Alley to the north (which is located between East 3rd Street and East 4th Street); North Cleveland Avenue to the west; and North Lincoln Avenue to the east. Additionally, the Site is classified into Zones which are described below (Figure 2):

- Zone A is between East 3rd Street and the alley (Back Stage Alley), and between North Lincoln Avenue and North Cleveland Avenue. Zone A includes 319 and 320 North Cleveland Avenue, 301 and 311 North Lincoln Avenue, and the parking lot was formerly 223 and 225 East 3rd Street.

- Zone B is between the Opera Alley and East 3rd Street, and between North Lincoln Avenue and North Cleveland Avenue. Zone B includes 216 and 270 East 3rd Street, which was formerly 224 and 226 East 3rd Street, and 233 North Lincoln Avenue.

- Zone C is between East 2nd Street and Opera Alley, and between North Lincoln Avenue and North Cleveland Avenue. Zone C includes 206 and 210 North Cleveland Avenue, 201 North Lincoln Avenue, and 215, 219, and 227 East 2nd Street.

- Zone D is between East 1st Street and East 2nd Street, and between North Lincoln Avenue and North Cleveland Avenue. Zone D includes 130 North Cleveland Avenue, 220 and 240 East 2nd Street, and 123 North Lincoln Avenue.

The design plans for the future on-site structures were not complete at the time of this MMP; however, Pinyon understands that future activities for the South Catalyst Project includes demolition of the existing structures and development of mixed-use (residential and commercial), multi-story facilities and associated parking.

1.3 Key Parties and Responsibilities

The key parties, their contact information and project responsibilities, are outlined below:

Organization	Role/Responsibility	Contact Information
City of Loveland	Economic Development Manager	Mike Scholl Phone: 970-962-2607 Email: Mike.Scholl@cityofloveland.org
City of Loveland	Environmental Compliance Administrator	Tracy Turner-Naranjo Phone: 970-962-3323 Email: Tracy.Turner-Naranjo2cityofloveland.org

Organization	Role/Responsibility	Contact Information
Stephen DiNardo Consulting	Manager Representative/Project Manager	Stephen DiNardo Phone: 303-478-6203 Email: spdinardo@comcast.net
Contractor	Construction	TBD
Environmental Consultant	Environmental oversight quality assurance to identify potentially contaminated soil and potential asbestos	Karlene Thomas (or TBD) Pinyon Environmental, Inc. 9100 West Jewell Avenue Phone: 303-980-5200 Email: Thomas@pinyon-env.com

1.4 Previous Environmental Concerns and Documentation

Historical documents, including several Phase I Environmental Site Assessments (ESA's) completed by CTL Thompson (CTL, 2009; CTL, 2014a; CTL, 2014b; CTL, 2015a; CTL, 2015b), a Phase II ESA completed by Pinyon (Pinyon, 2016a), and a Colorado Department of Public Health and Environment (CDPHE) Voluntary Cleanup Program (VCUP) application completed by Walsh Environmental Scientists and Engineers, LLC (Walsh, 2011), were reviewed as part of this MMP.

Figure 3 depicts the areas of environmental concern in relation to the previous documents and field investigations. Additional information concerning the December 2015 and January 2016 field investigations and results can be found in the Phase II ESA report dated February 5, 2016 and the Phase II ESA Additional Work report dated February 23, 2016.

It should be noted that all previous and current observations and sampling were conducted at limited locations; therefore, there is a potential that other areas not directly investigated could result in the Contractor encountering contaminated soils. This MMP is prepared to assist the Contractor in addressing unexpected subsurface impacts.

Table 1-1 Potential and Known Environmental Concerns at the Site

Property Address/Location	Potential Environmental Concerns
Zone A	
301, 311, 319 North Lincoln Avenue	Former dry cleaner and auto service station. Potential residual contaminants in soil and groundwater could include metals, VOCs, and petroleum hydrocarbons.
223 and 225 East 3rd Street	Former used car lot and current parking lot. Potential residual contaminants in soil and groundwater could include petroleum hydrocarbons.
320 North Lincoln	Former auto repair shop with underground storage tank (UST). Potential residual contaminants in soil and groundwater could include petroleum hydrocarbons and metals.
Discussion: Multiple Phase II ESAs were conducted at 301, 311, and 319 North Lincoln. The findings of the investigations identified two areas of petroleum contamination associated with the historical presence of USTs/dispenser island, and an off-site source in the adjacent property (223 and 225 East 3rd Street) which is attributed to a former UST basin. Additionally, tetrachloroethene (PCE) and chloroform were found in soil and groundwater samples collected in the vicinity of the former dry cleaners. The PCE concentrations in soil were observed in the vicinity of the dry-cleaner (along the west property line). PCE was detected in groundwater across the Site and off-Site. During the initial implementation of the VCUP application for the former dry cleaners, approximately 2,592 cubic yards of impacted soils were excavated (to depths up to 20 feet below ground surface) and removed from the Site. Upon completion of excavation activities, laboratory analysis showed that VOC concentrations in the samples were not above respective CDPHE Colorado Soil Evaluation Value (CSEVs). Periodic groundwater monitoring for VOCs continues for a network of wells which are both upgradient and downgradient from 301 N. Lincoln. PCE concentrations in groundwater continue to decrease over time, however they are still above the Colorado Water Quality Control Commission (WQCC), *Regulation No. 41, The Basic Standards for Ground Water.* During the 2015 Phase II ESA field activities, two soil and groundwater samples were collected and analyzed from the Zone A area at 223 and 225 East 3rd Street (Figure 3). Several polycyclic aromatic hydrocarbon (PAH) constituents were detected in the soil collected from the northern portion of the parking lot at concentrations exceeding the Environmental Protection Agency (EPA) Regional Screening Level (RSL) for residential soils. PCE and various metals were detected in soil samples at concentrations below the applicable regulatory standards. Chloroform was detected in the groundwater sample collected from the northern portion of the parking lot at a concentration exceeding the groundwater organic chemical standard. PCE was also detected in the groundwater, but was below the groundwater organic chemical standard.	
Zone B	
216 East 3rd Street	UST site and historical auto service center. Potential residual contaminants in soil and groundwater could include VOCs, petroleum hydrocarbons, and metals.
270 East 3rd Street (formerly 224 and 226 East 3rd Street)	Former leaking underground storage tank (LUST) site from former auto repair activities (Carrol's Conoco). Potential residual contaminants in soil and groundwater could include VOCs, petroleum hydrocarbons, and metals.

Property Address/Location	Potential Environmental Concerns
Discussion: The property at 270 East 3rd Street (formerly Carrol's Conoco and Keck Auto, 233 North Lincoln Avenue) was listed on the Colorado Department of Oil and Public Safety (OPS) database as closed for having a LST and six USTs. The six USTs included three gasoline tanks, one diesel tank, and two waste oil tanks (Spaine, 1998). In November 1998, the six USTs were removed with approximately 261 cubic yards of petroleum impacted soil. In 1999, additional investigative work was completed to determine the extent of petroleum impacted soils. Based on the 1998 and 1999 sampling results, limited residual petroleum impacted soils were present in the vicinity of the tank grave which was located in the northern central portion of the property and fueling islands which was located in the central portion along the western property boundary. In January 2006, the property was given a No Further Action determination by OPS pertaining to the LST and petroleum impacted soils and groundwater (OPS, 2006). During the 2015 Phase II ESA field activities, five soil and groundwater samples were collected and analyzed from Zone B (Figure 3). Various metals were detected in the soil samples, but are considered to be naturally occurring concentrations. Arsenic and selenium were detected above the drinking water standards (again, likely naturally occurring), and chloroform was detected above the organic chemical standard. PCE was detected in two groundwater samples above the laboratory detection limit, but below the groundwater organic chemical standard. In January 2016, a soil gas survey was completed to determine the extent and source of the PCE detections from the December 2015 field results. The findings of the 2016 soil gas survey did not indicate a source area for PCE with respect to the Site building.	
Zone C	
201 North Lincoln Avenue	Auto repair and filling station. Potential residual contaminants in soil and groundwater could include VOCs, petroleum hydrocarbons, and metals.
Discussion: The property at 201 North Lincoln Avenue (Figure 3) operated as an auto repair and filling station from 1937 to 2005. The 2015 Phase I report indicated that five USTs were present on-site; however, no records or permits are available on the USTs. It is not known if the USTs were closed in-place. During the 2015 Phase II ESA field activities, a total of four soil and groundwater samples were collected and analyzed from Zone C (Figure 3). Soils exceeding the EPA RSLs for residential and/or industrial soils were not identified. PCE was detected in one groundwater sample above the Colorado groundwater standards. A geophysical survey was completed on the property to evaluate the presence of the USTs. Two anomalies consistent with the presence of USTs were identified at the Site; located on the north side of the 201 North Lincoln Avenue property (Figure 4). In January 2016, a soil gas survey and additional temporary wells were completed to evaluate the extent and source of the PCE detections from the December 2015 field results. The findings of the soil gas survey did not indicate a source area for PCE. However, a small VOC "hot spot" was identified in the vicinity of front of the property building. Three temporary wells were installed in the vicinity of the small "hot spot" in order to collect additional soil and groundwater data. Based on the findings of the temporary well installation field activities, PCE was not detected above the soil or groundwater standards in the three soil borings. However, a detection of 1,2,4-trimethylbenze in soil at a concentration above the residential soil standard, and a detection of naphthalene in groundwater at a concentration above the groundwater standard, were noted in the soil boring located along the property boundary and North Lincoln Avenue.	

Property Address/Location	Potential Environmental Concerns
Zone D	
123 North Lincoln Avenue	Auto repair and filling station. Potential residual contaminants in soil and groundwater could include VOCs, petroleum hydrocarbons, and metals.
The property at 123 North Lincoln Avenue (Figure 3) operated as an auto repair and filling station from 1937 to approximately 2005. The 2014 Phase I report indicated two USTs were present on the property. One UST was removed during road construction activities in 2001. The second UST was not found, and no other information is available. During the 2015 Phase II ESA field activities, three soil and groundwater samples were collected and analyzed from Zone D (Figure 3). None of the analyzed constituents exceeded the appropriate regulatory value. A geophysical survey was completed on the property to evaluate the presence of the USTs. One anomaly consistent with the presence of a small UST was identified at 123 North Lincoln Avenue property (Figure 4).	

Notes:

Refer to the Phase II ESA report dated February 5, 2016 and the Phase II ESA Additional Work report dated February 23, 2016 for further details regarding historical site uses, site characterization activities, and analysis of collected data

2. Health and Safety

There is a potential for increased risk to the health of workers during excavation at the Site. Awareness by site personnel of these hazards is of the highest priority. Therefore, a Health and Safety Plan (HASP) must be developed by the Contractor. The Contractor's field personnel must conduct work in Level D attire at a minimum, unless the Contractor's Health and Safety Officer (HSO) determines that additional protection is required.

If it is determined that additional protection is required, personal protection equipment (PPE) will be provided by the Contractor to continue the work while providing a safe working environmental for all personnel. The appropriate PPE will be determined by the Contractor's HSO. Site personnel must be provided with a copy of the HASP for review, and must be aware of and agree to the requirements of the HASP. The Contractor will be required to employ the proper personnel, monitoring equipment, and PPE to provide a safe working environment for its employees, consultants and sub-contractors. The provisions of this MMP are summarized below, and will be incorporated into the HASP. However, in no way shall the HASP be limited to these provisions.

- All work will be performed in accordance with the requirements of the Occupational Health and Safety Administration (OSHA), 29 Code of Federal Regulations (CFR) 1910.

- When implementing this MMP, it is the Contractor's responsibility to employ workers with the appropriate level of training. The site has not been classified as an "uncontrolled hazardous waste site" per OSHA, thus 1910.120 (a)(1)(i)(iii) are not applicable. As such, all employees working on the site shall be informed of and trained on any/all risks that have been identified per 1910.1200, and the applicable requirements detailed in this document and the HASP. If personnel are working in areas where unknown hazardous materials have been identified during construction, they are required to have training in accordance with 1910.120 (i.e., OSHA 40-hour certified). All other employees, project personnel, or visitors arriving on site with the intent of observing excavation activities must obtain a site-specific health and safety briefing and wear the appropriate PPE for the task at hand in accordance with OSHA 1910.120(c)(7). The health and safety briefing will be provided by the Project Safety Manager.

- Site personnel should complete, at minimum, OSHA 2-hour asbestos awareness training so that workers are trained sufficiently to understand and avoid asbestos hazards, if they are encountered during the project. When debris, household waste or asbestos is encountered, work in that area will stop immediately, and workers will contact a Colorado Asbestos Building Inspector (CABI) to inspect materials during excavation.

- If required, personal monitoring will be performed under the supervision of the HSO.

- No personnel shall enter an excavation unless standard procedures have been followed and hazards have been eliminated or properly mitigated.

3. Personnel Requirements and Training

The Contractor will manage all RMs, including soil, groundwater, surface water, asbestos, lead and other contaminated substances to prevent exposure to the environment, project personnel and the public and to prevent impacts of non-impacted areas. The Contractor will be responsible for implementation and maintenance of environmental controls and ensure that:

- All necessary equipment and personnel are provided to implement this MMP
- Personnel are trained to recognize and manage regulated materials
- Contaminated material that has been disturbed is not reused on-site
- Contaminated material that has been disturbed is not disposed of into storm drains, sanitary sewers, streams, irrigation facilities or waterways
- Non-salvageable, non-hazardous solid waste materials removed by the Contractor are removed from the Site and disposed of at a licensed Subtitle D landfill facility in accordance with local, state and federal laws
- The MMP Supervisor, discussed below, will be qualified to verify implementation of this MMP

3.1 Supervisor

Prior to implementation of the MMP, the project team will retain a MMP Supervisor in a quality assurance (QA) role to independently verify that the requirements of this plan are adhered to. The MMP Supervisor will be responsible for the following:

- Provide documentation of training and past experience with chemical-related health and safety (documentation must be maintained on-site)
- Be on-site to verify site operations
- Provide oversight and direction in the management of RMs on an as-needed basis when potentially contaminated media have been encountered
- Verify or perform field screening of soil in adherence to this plan (see Section 8)
- Complete logs thoroughly detailing QA site activities
- Verify adherence to this plan
- Identify unknown soils or materials and implement the MMP
- Verify that the CABI, if necessary, is properly certified prior to collecting suspect ACM samples

3.2 Tier I – Front-Line Workers

Tier I workers include all personnel that would be responsible for mitigating potential regulated materials. Those workers could include equipment operators and laborers actually handling materials in accordance with this MMP. These workers must:

- Complete work as directed by the MMP Supervisor, and in accordance with this MMP.
- Complete work in accordance with the requirements of the Occupational Health and Safety Administration (OSHA), 29 CFR 1910.120. The level or training in accordance with CFR 1910.120 shall be determined and confirmed by the HSO.
- Complete, at minimum, OSHA 2-hour asbestos awareness training to better understand and identify asbestos hazards, and to understand the proper protocols if asbestos in soil is encountered.

3.3 Tier 2 – Excavation Workers

Tier 2 employees include all personnel that could possibly discover hazardous materials during the course of work, but will not be responsible for management of these wastes. These employees include, but are not limited to, front-line equipment operators, foremen and operators that will complete typical excavation activities during the project, but will not complete handling of these materials after discovery.

These personnel will be responsible for the following:

- Be trained on identification of hazardous materials by the MMP Supervisor.
- In the event that suspected materials are identified, immediately stop work, and contact the MMP Supervisor of the discovery.
- Complete work in accordance with the requirements of the OSHA, 29 CFR 1910.120. The level or training in accordance with CFR 1910.120 shall be determined and confirmed by the HSO.
- Complete, at minimum, OSHA 2-hour asbestos awareness training to better understand and identify asbestos hazards, and to understand the proper protocols if asbestos in soil is encountered.

3.4 Tier 3 – Other Workers

Tier-3 workers include all workers that would not complete sub-surface work activities. As the possibility for "other workers" to encounter hazardous materials on this project is low, training requirements do not apply.

4. Soil Management Procedures

Project activities may include excavations where impacted soils may be encountered. Because of the heterogeneous nature of the soil, it is important that the Contractor be aware of the possibility of encountering petroleum and/or solvent impacted soils or suspect ACM in soils including building debris or buried utilities. This section is presented for the purpose of assisting the Contractor in property identifying and managing potentially impacted or impacted soils.

4.1 General Procedures

The following procedures will apply to all excavation activities conducted for this project by the Contractor:

- The Contractor will be responsible for providing all necessary equipment and personnel (including HSOs, foremen, laborers, MMP Supervisor, etc.) to implement this MMP.
- The Contractor will be responsible for coordinating with the MMP Supervisor, a licensed Subtitle D landfill, the City, and the Engineer prior to work commencement, in order to verify that work adheres to the provisions of this MMP.
- During excavation if any soils are encountered that exhibit unusual staining, discoloration or odors, the Contractor must stop work and contact the MMP Supervisor. The MMP Supervisor will provide direction regarding the handling of these materials in accordance with Section 4.
- If unanticipated contaminated materials are encountered, work in the affected area must stop immediately and the MMP Supervisor will be notified about the findings. Work will not resume in the area until the MMP Supervisor provides authorization.
- If suspect asbestos-containing material (ACM) fill, household debris, construction debris, etc., is encountered, work in the area must stop immediately, the MMP Supervisor will be notified, and a CABI must be mobilized to the Site to collect samples. If necessary, the MMP Supervisor will determine if an abatement contractor is needed at the Site.

4.2 Soil Stockpiling Requirements

Soil that exceeds field screening standards (as specified in Section 4.5 below), or exhibits visual or olfactory evidence of impacts, will be temporarily stockpiled on 6-millimeter (mil) plastic sheeting pending receipt of the results of laboratory analysis in accordance with Section 8. Stockpiles of potentially impacted soil will be limited to a maximum of 500 cubic yards each. Implementation of stormwater best-management practices (BMPs) of stockpiles of potentially impacted material will be completed to prevent contact with stormwater runoff and to mitigate potential stockpile erosion including:

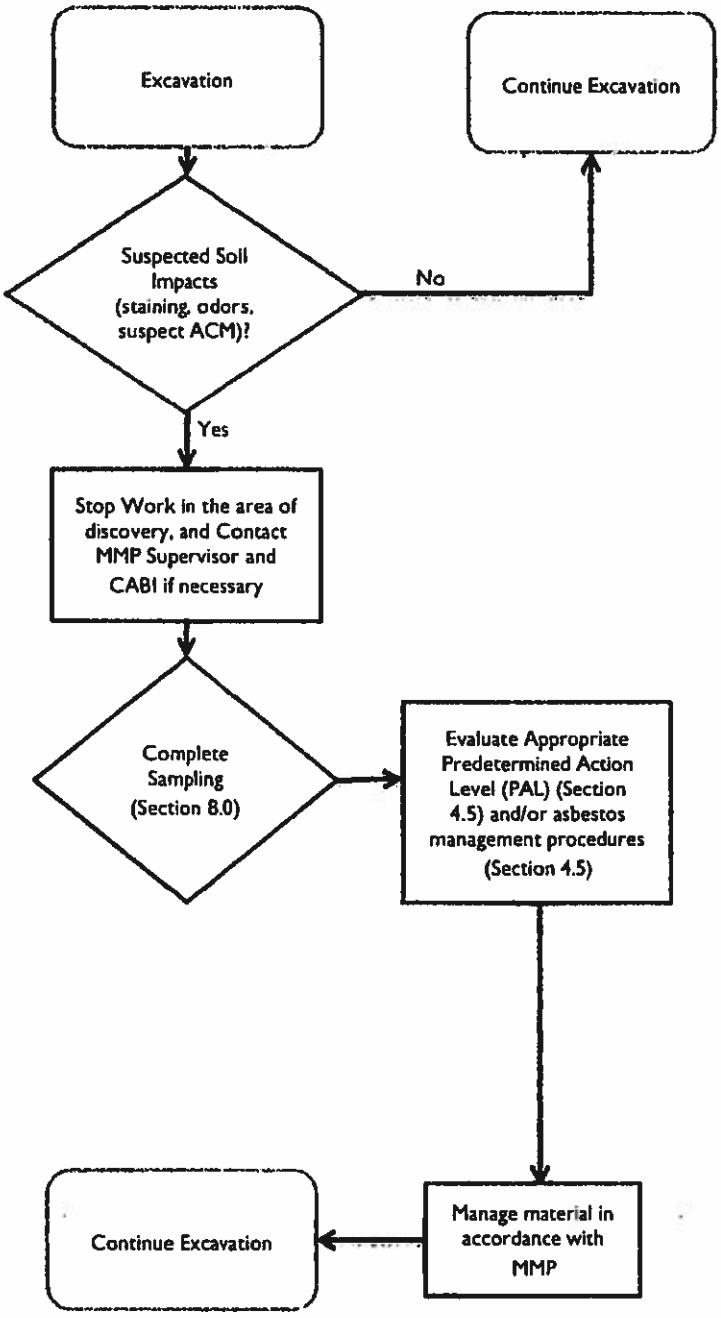
- Minimizing the amount of soil disturbed at one time
- Prevent runoff from off-site areas from flowing across disturbed areas
- Slow down the runoff flowing across the Site
- Remove sediment from on-site runoff before it leaves the Site

4.3 Asbestos Containing Material

If buried building materials, municipal trash or other materials which may contain asbestos, including buried utilities are encountered, work in the area must stop immediately and workers must comply with Section 5.5 of the Solid Waste Regulations, or Regulation No. 8 of the Air Quality Control Commission Regulations (see Section 8.4). This would include notification to the MMP Supervisor immediately. A CABI must be called onto the project to sample and analyze the suspect material to determine if it is asbestos-containing. Any asbestos-containing material must then be handled under the appropriate regulations and a licensed contractor should be contracted to oversee the work.

4.4 Process Flow

The following process-flow chart presents a general flow of procedures that will be followed in the event that suspected contaminated soils are identified.


Excavation
Continue Excavation
Suspected Soil Impacts (staining, odors, suspect ACM)?
No
Yes
Stop Work in the area of discovery, and Contact MMP Supervisor and CABI if necessary
Complete Sampling (Section 8.0)
Evaluate Appropriate Predetermined Action Level (PAL) (Section 4.5) and/or asbestos management procedures (Section 4.5)
Manage material in accordance with MMP
Continue Excavation

4.5 Predetermined Action Levels for Soil Management

Predetermined Action Levels (PALs) will be used to determine if the soil generated at this project is acceptable for reuse, or requires transport off-site for disposal at an appropriate landfill. The PALs are based on the CDPHE use of the EPA RSLs for Industrial Soils (EPA, 2015) (Appendix A). RSLs assign numerical contaminant concentrations as preliminary cleanup goals. In addition, CDPHE has provided Risk Management Guidance for Evaluating Arsenic Concentrations in Soil (CDPHE, 2011a). This document in part states that "If arsenic concentrations are lower than 11 mg/kg (the average of the 95% upper confidence limit of the mean (UCLM) of background concentrations found by the EPA in Colorado), and releases of arsenic could not have occurred at the Site, based on historical data or process knowledge, the Division will require no further action to address arsenic in soil."

4.5.1 Exposure Scenarios

CDPHE Groundwater Projection values in conjunction with EPA RSL guidance will be used for comparison to soil data. The following guidance is applicable for evaluating soil concentrations for varying exposure scenarios:

- **CDPHE Groundwater Protection** – Guidance values were developed by CDPHE to protect groundwater from potentially leachable constituents in soil. For volatile constituents, the CDPHE-Hazardous Materials and Waste Management Division Groundwater Protection Values Soil Cleanup Table (CDPHE, 2014) values will be used for comparison to soil data.

- **EPA RSL Residential Protection** – Soil concentration values that are considered appropriate for residential areas.

- **EPA RSL Worker Protection** – Soil concentration values that are considered appropriate for commercial and industrial properties.

The application of these values for making material handling decisions is discussed in the following sections.

4.5.2 Non-Impacted/Unrestricted Reuse

Soils with chemical concentrations below the guidelines for their respective RSLs for residential or industrial properties and CDPHE groundwater protection values may be reused at on- or off-site locations, assuming the receiving facility has agreed to accept this material. This material must be free from any construction/demolition debris, and free of ACMs.

The majority of the soil sampled by Pinyon in December 2015 would be classified in the non-impacted/unrestricted reuse category. The exception to this is the sample collected from the northern portion of Zone A, which would be classified as impacted-restricted reuse, which is further explained in Section 4.6.3. Note that a limited number of samples were collected and the heterogeneous nature of the soil can lead to vastly different soil conditions over small distances.

Detailed documentation of the on- or off-site disposition will be maintained by the MMP Supervisor. Documentation should include:

- Analytical data

- How and where the soils are used on the project

- A reference to the proximity to groundwater

If logistically there is no place to reuse this soil on- or off-site, it may be disposed of at a licensed Subtitle D landfill. All manifests from off-site disposal must be maintained.

4.5.3 Impacted-Restricted Reuse

Soil with chemical concentrations above RSLs for residential property, but below RSLs for worker protection (commercial or industrial property), may be reused at an on-site or off-site commercial, industrial, or mixed-use property without limitation, assuming:

- The groundwater protection levels have been met
- For mixed-use properties, residential spaces must not be at ground level or below
- It is free of construction/demolition debris, including ACMs
- The owner of the receiving property approves it
- The soil is capped with an engineered barrier such as concrete or asphalt
- If groundwater protection values have not been met, soil must be placed greater than 10 feet above the static groundwater level.

Impacted-restricted reuse soil was identified at the northern portion of Zone A in sample ZA-01-S-0-5. Further details regarding this sample and additional samples collected at the Site can be found in the Phase II ESA report dated February 5, 2016 and the Phase II ESA Additional Work report dated February 23, 2016.

Detailed documentation of the on- and off-site disposition will be maintained by the MMP Supervisor. Documentation should include:

- The analytical data
- How and where the soils are used on the project
- A reference to the proximity to groundwater (must be ten feet above static water level if it does not meet the groundwater protection values)
- Whether clean cover material will be placed above the material

If logistically there is no place to reuse this soil on- or off-site, it may be disposed of at a licensed Subtitle D landfill. All manifests from off-site disposal must be maintained.

4.5.4 Health Risk – Restricted Reuse or Disposal

For soils that fall in the health-risk category (above industrial use [commercial or worker protection]), it will be necessary to complete a risk evaluation, compare concentrations to background concentrations, or reuse the soil with an engineered barrier to eliminate exposure. If risk analysis is technically or financially prohibitive, or prolongs the project, landfill disposal should be selected as the mitigation option. The MMP Supervisor should be consulted to recommend additional alternatives.

Generally, soils that fall into this category are as follows:

- Have chemical concentrations that exceed the CDPHE RSLs for Industrial Use
- Are not characteristically hazardous

Limited soils exceeding the industrial RSLs were identified the former Conoco at 233 North Lincoln Avenue, however it is possible that soils categorized as a health risk may be encountered during construction at other locations at the Site (Figure 3 and 4). The MMP Supervisor will specify how the work is completed in these areas.

4.5.5 Hazardous Waste

If sample analysis indicates that the soil is designated as hazardous waste, the soil will be containerized immediately in a lined roll-off box, labeled, and transported to a designated storage area on-site or off-site pending off-site disposal at a hazardous waste disposal facility. These wastes will be manifested and transported to the disposal facility in accordance with state and federal regulations. Once identified as hazardous waste, this material may not be stored on-site longer than 90 days.

The disposal facility chosen to accept the hazardous waste will be decided based on the location of the materials and the location of an appropriate disposal facility. The Clean Harbors LLC, Deer Trail Landfill is the only facility within Colorado licensed to accept hazardous waste. Facilities in Utah and Texas are the closest other licensed hazardous waste disposal facilities. Transportation and manifestation of these waste materials on public highways, streets, or roadways will be in accordance with 49 CFR and any applicable CDOT regulations.

Note: Certain waste streams are specifically excluded in the Solid Waste Regulations (CDPHE, 2011b). The MMP Supervisor (and as approved by the City Project Manager) will be responsible for ultimate classification for disposal.

5. Construction Water Handling Procedures

Construction water may consist of stormwater, surface water, groundwater, and/or leachate and will be addressed using the following procedures. Surface water and leachate are not expected to be prevalent during this project.

5.1 Stormwater

The Contractor shall obtain a Colorado Discharge Permit System (CDPS) permit for stormwater discharges associated with construction. The Contractor (or design engineer) shall prepare a stormwater management plan (SWMP) for construction as required by the permit. The Contractor will assign a SWMP administrator, who will oversee or perform routine inspections and regulatory reporting/correspondence to ensure that the SWMP "living document" is modified and developed to remain in compliance with National Pollutant Discharge Elimination System (NPDES) regulations. Specific stormwater management requirements, including BMPs, will be addressed in the project-specific SWMP. The SWMP will also be updated accordingly as project progresses and these facilities are constructed or removed.

5.2 Groundwater

Sampling has confirmed the presence of chloroform throughout Zones A and B; tetrachloroethylene (PCE) throughout Zone A, in the central portion of Zone B, and the southeastern portion of Zone C; arsenic in the northwestern portion of Zone B and the southern portion of Zone C; and selenium in the southeastern portion of Zone C at concentrations which potentially exceed discharge limits.

At the time of this MMP, specific design plans had yet to be completed. Based on the observed concentrations of chloroform, arsenic, selenium, and PCE in groundwater, if the design requires dewatering, a CDPHE Water Quality Control Division (WQCD) Remediation Activities Discharging to Surface Water permit (COG315000) must be completed and submitted to the WQCD. This would likely require additional groundwater sampling to analyze for all of the required permit parameters. **The WQCD requires the application to be submitted 45 days prior to the anticipated date of discharge, and should therefore be submitted as early in the planning process as possible to avoid potential delays.**

To better assess the potential need for dewatering, the following groundwater depths were collected at the Site on December 7, 2015. Groundwater was encountered between 12.26 and 17.34 feet below ground surface (bgs) (Table 5-1). Groundwater flow in the area is variable, but based on the topography of the area and the overall trend of groundwater elevation at the Site, the general hydraulic gradient at the Site is presumed to be to the east-southeast (Figure 5) (Pinyon, 2016a).

Table 5-1 Depth to Groundwater - December 7, 2015

Monitoring Well	Depth to Water (feet below ground surface)
Zone A	
ZA-SB-01	17.34
ZA-SB-02	16.66
Zone B	
ZB-SB-03	15.22
ZB-SB-04	14.11

Monitoring Well	Depth to Water (feet below ground surface)
ZB-SB-05	15.89
ZB-SB-06	15.28
ZB-SB-07	15.34
ZB-SB-08	14.63
Zone C	
ZC-SB-09	14.33
ZC-SB-10	12.85
ZC-SB-11	12.26
ZC-SB-12	12.40
Zone D	
ZD-SB-13	12.88
ZD-SB-14	12.59
ZD-SB-15	12.26

The Contractor may manage groundwater using the methods below. Regardless of the methodology used to manage groundwater, the Contractor will minimize dewatering wherever practicable.

1. Avoid dewatering (through construction methods that preclude the need to dewater, as approved by the engineer), thus avoiding the need to treat, haul, or otherwise manage the groundwater.
2. Land infiltration – If documented analytical results indicate that contaminants of concern in groundwater encountered in a specific area during construction activities (i.e. caisson drilling), are less than the Colorado Groundwater Standards, then the water may be bermed within the vicinity of the drill hole and be allowed to naturally percolate into the soil and re-enter the groundwater table. In addition, this water may be used for dust suppression on the project area, as specifically allowed under the stormwater permit, provided that no water leaves the project boundaries as surface runoff. If there is no analytical data for groundwater in a specific construction area, then the groundwater will be containerized and analyzed prior to infiltration to verify that there are no contaminants of concern above groundwater standards.
3. Pump, contain, treat, and discharge groundwater to surface water in accordance with regulatory requirements.
    - This method will likely require additional groundwater sampling. Based on the currently available groundwater results, a CDPHE-WQCD Remediation Activities Discharging to Surface Water permit (COG315000) application will likely need to be submitted.
    - After permit approval, analytical sampling will be required prior to discharge to comply with the surface water discharge limits.
    - The Contractor must adhere to the standards set forth in the permit and must also prepare a Remediation Activities Management Plan (RAMP) prior to any discharge activities taking place. The RAMP must satisfy the requirements listed in the CDPS Permit. The requirements include, but are not limited to:

- Specifying the dewatering water treatment methodology
- Listing the numeric effluent limitations
- Monitoring parameters, and frequencies
- Describing pollutant control, material handling, and spill prevention practices
- Describe proper housekeeping, recording, and reporting procedures
- Ensure site personnel, including operators, are properly trained for the work they are completing including oversight and operator licensed by the State of Colorado

- The Contractor must fill out and submit a monthly Discharge Monitoring Report (DMR) to the CDPHE-WQCD for the life of the permit, even if no water is produced.

4. Pump, contain, and haul water to a proper disposal facility in accordance with applicable laws and regulations.

If dewatering is necessary, water from dewatering operations cannot be directly discharged into waters of the State, including wetlands, irrigation ditches, canals, or storm sewers, unless allowed by a permit. Unless prohibited by law or otherwise specified in the Contract, the water from dewatering operations will be contained in basins in locations approved by the engineer, treated for discharge in accordance with the CDPHE-WQCD permit(s), or will be hauled away from the project for proper disposal in accordance with applicable laws and regulations.

5.2.1 Leachate

If saturated materials are encountered, stockpile areas will be constructed to drain material before re-use as engineered fill, or transport to a licensed Subtitle D landfill (assuming it is impacted). Generated liquids will drain to a central sump. The sump will be excavated into the ground and sloped to a central location. It will also be lined with 6-mil polyethylene sheeting, and have a layer of gravel to hold the sheeting in place. A berm will be placed around the sump to prevent surface water from commingling with the generated leachate water. In addition, saturated soils may be placed in a constructed sump that is completely lined to contain any liquids. The saturated soils can be allowed to dry and the liquids evaporate. Otherwise, any liquids accumulated within the sump must be submitted for analysis by the Contractor and coordinated with the MMP Supervisor. If constituents in the water exceed the CDPHE-WQCD permit limits, the water will be disposed off-site using appropriate profiling and manifesting or treated and discharged in accordance with the permit(s). Solid waste which has been drained or mixed must pass the paint filter test prior to disposal at a licensed Subtitle D landfill by U.S. EPA Method 9095A.

6. Special Wastes

Although not anticipated, other special wastes may be encountered and could include items such as drums, chemical or fuel containers, batteries, tar, sludge, petroleum-hydrocarbon impacted soil, materials that are hazardous waste, and potential polychlorinated biphenyls (PCBs) containing equipment (transformers, light ballasts, voltage regulators, capacitors and circuit breakers). These materials may be present in small quantities and can be difficult to characterize. Upon identification of special wastes, excavation at that location will cease until additional assessment by the MMP Supervisor can be completed, and the City is contacted. The MMP Supervisor will attempt to assess special wastes, including prudent and safe observation for the following:

- Markings and or labels on containers/drums, condition of the containers/drums (e.g., rust, holes, damage, corrosion) and other indications of contents
- Indications of unsafe conditions, including swelling drums, leaking, fumes, odors, etc.
- Conditions of materials associated with the special wastes
- Assessment for evidence of release, obtained by utilizing field instruments (i.e. Photoionization detector [PID], combustible gas indicator [CGI] and professional judgment)

Only under the direction of the MMP Supervisor, will handling of any special wastes be completed. When handling is required, the following precautions will be taken:

- Handling will be minimized whenever possible.
- When necessary, handling will be employed by mechanical means including the use of site excavation equipment.
- Pressurized/swelling drums, suspected explosives, potentially shock-sensitive materials or other potentially dangerous items will not be handled until a person with appropriate experience with these situations has been consulted.
- All special wastes will be placed on 6-mil plastic sheeting and covered, until additional assessment has been completed by the MMP Supervisor (the time frame will allow for laboratory testing and obtaining a profile and manifest for disposal).
- Sampling will be coordinated with the City Project Manager, by the MMP Supervisor.
- All stockpiles of special waste will be covered immediately or containerized, and will remain covered or containerized until final removal.
- Soil stockpiles of potentially contaminated soil or other materials will be limited to a maximum of 500 cubic yards each.
- Implementation of stormwater best-management practices (BMPs) for stockpiles of potentially contaminated material will be completed to prevent potentially contaminated stormwater runoff.
- Stockpile areas will be securely fenced to prevent contact with unauthorized personnel and the public.
- Suspicious materials will be further evaluated by the MMP Supervisor (Section 3.1). When additional assessment of this material indicates that the material does not meet applicable regulatory requirements

for disposal as a non-hazardous waste, the MMP Supervisor will arrange for off-site disposal at a licensed facility as solid waste.

- The material will be characterized and manifests will be obtained before it is disposed off-site, and the material will be disposed as soon as possible.
- Any special wastes that are generated will be managed in accordance with the applicable local, state and federal regulations.
- Where suspicious material is determined to be non-hazardous by the MMP Supervisor through additional assessment, the material may be disposed as non-hazardous solid waste at a licensed Subtitle D landfill.

7. Additional Requirements

7.1 Dust

In accordance with 5 CCR 1001 – Air Quality Control Commission (AQCC) Regulations, the Contractor will obtain an Air Pollution Emissions Notice (APEN) and Application for Construction Permit. The Contractor will implement best management practices to minimize dust, such as the following:

- The Contractor shall conduct construction operations and take all necessary reasonable measures to eliminate or minimize raising dust resulting from any stored materials, equipment or operations used during completion of the work.
- Blowing dust and airborne particulates shall be controlled by wetting or other means, if approved by the Project Manager. Dust control agents shall be applied in accordance with manufacturer's recommendations.
- The Contractor shall provide and apply dust control at all times, including holidays and weekends, as required to abate dust nuisance on and about the Site that is a direct result of construction activities. The Contractor shall be required to provide sufficient quantities of equipment and personnel for dust control sufficient to prevent dust nuisance on and about the Site.

7.2 Decontamination of Heavy Equipment

Equipment that has come into contact with waste as identified by the MMP Supervisor will be decontaminated prior to leaving the project site to prevent potentially contaminated material from being spread off-site. Gross removal of material from equipment will be completed using hand tools such as shovels, brooms and brushes. If the MMP Supervisor finds it necessary, more thorough decontamination may be required such as pressure washing. Spent decontamination water will be collected in basins and pumped into water containers. The Contractor will be responsible for analyzing the waste-water and working with the City to determine final disposal options in accordance with all applicable federal, state and local regulations.

7.3 Site Security

The Contractor will be responsible for maintaining effective project access control.

8. Waste Characterization Protocols

The following presents protocols to characterize special and/or suspicious waste, which have not been previously characterized for disposal. When potentially contaminated material is encountered, the Contractor and MMP Supervisor will be responsible for coordinating with the City for sampling, waste profiling, and agency notifications. The Contractor and MMP Supervisor will be responsible for evaluating special wastes (for disposal purposes) in accordance with 6 CCR 1007-3, Section 262.11., and in accordance with all other applicable federal, state and local regulations. Further, waste disposal facilities may have special requirements necessary for the Contractor to obtain an approved waste profile and manifests. This evaluation must identify whether the wastes are characteristic or listed hazardous wastes. The following table is a summary of potential wastes that may be encountered at the Site and the sample methods and associated regulatory standards. Further details are provided throughout Section 8.

Table 8-1 Waste Characterization Protocols

Contaminant of Concern	Method of Identification	Identification Process	Analytical Methods	Applicable Regulatory Standards
Volatile Organic Compounds and/or Petroleum Hydrocarbons	Visual, olfactory, PID screening	If potentially impacted soils are encountered, work in that area must stop and the MMP Supervisor must be notified immediately.	VOCs by EPA 8260C	EPA RSLs for Industrial and Residential soil.
			TPH by EPA 8105B	For UST sites: OPS threshold value of 500 mg/kg. If that value is exceeded, further analysis for PAH is required, which would then be compared to the Tier I Risk-Based Screening Levels (RBSLs).
Asbestos-Containing Materials	Visual	If potential ACM is encountered, work in that area must stop and the MMP Supervisor must be notified immediately. A CABI must be mobilized to the site to evaluate next steps and collect samples.	Polarized light microscopy	If asbestos is detected, impacted soil must be handled according to Section 5.5 of the Solid Waste Regulations, or Regulation No. 8 of the Air Quality Control Commission Regulations, whichever is applicable to the situation as determined by the CABI.

Contaminant of Concern	Method of Identification	Identification Process	Analytical Methods	Applicable Regulatory Standards
Slag, Coal, Ash	Visual	If potentially impacted soils are encountered, work in that area must stop and the MMP Supervisor must be notified immediately.	VOCs by EPA Method 8260C	EPA RSLs for Industrial and Residential soil.
			PAHs by EPA Method 8270	EPA RSLs for Industrial and Residential soil.
			PCBs using EPA Method 8082	EPA RSLs for Industrial and Residential soil.
			RCRA 8 metals using EPA Method 6010/7471	EPA RSLs for Industrial and Residential soil, except for arsenic which will be compared with CDPHE Risk-Based Guidance value of 11 mg/kg.
Electrical Equipment (PCBs)	Visual	If potentially impacted soils are encountered, work in that area must stop and the MMP Supervisor must be notified immediately.	PCBs using EPA Method 8082	EPA RSLs for Industrial and Residential soil.

Notes:
After the analytical results have been compared to the appropriate regulatory standards, that information should be used to compare with the PALs listed in Section 4.6 to evaluate soil handling protocols
EPA – Environmental Protection Agency
PCB – Polychlorinated Biphenyls
PAH – Polycyclic Aromatic Hydrocarbons
TPH – Total Petroleum Hydrocarbon
mg/kg – milligrams per kilogram
RSL – Regional Screening Level
VOC – Volatile Organic Compounds
RCRA – Resource Conservation and Recovery Act
TCLP – Toxicity Characteristic Leaching Procedure

8.1 Waste Identification

For the purpose of this MMP, soils generated during construction of the project will be assumed to meet the Non-Impacted/Unrestricted Reuse PAL (Section 4.6.2), if it meets **all the following conditions**:

- Soil consists of either natural soils, or engineered fills such as roadway fill
- There is no visual or olfactory indication of impacts (e.g., staining, streaking, odor), or if field screening results (PID) are less than 25 units above background conditions
- There is no indication of the presence of solid waste (e.g., foreign materials including demolition debris, municipal solid waste, coal ash, slag)

8.2 20-Times Rule

The licensed Subtitle D landfill will accept solid material where concentrations are less than 20 times the hazardous listing for characteristic waste (20 Times Rule), except for PCBs as discussed in Section 8.6. The EPA Toxicity Characteristic Leaching Procedure (TCLP) Maximum Concentrations of Contaminants is presented as Appendix B. As an example, the regulatory level of lead (a Resource Conservation and Recovery Act [RCRA] regulated metal) is 5.0 milligrams per liter (mg/L) when analyzed by TCLP. The Waste Management acceptable limit, when analyzed by totals analysis, would then be less than 100 mg/kg, using the 20 Times Rule. If concentrations of any contaminant exceed the 20 Times Rule by totals analysis, then analysis for TCLP is required. If the TCLP results exceed the toxicity characteristic maximum concentration (Appendix B) then the material would require disposal at a hazardous waste disposal site in accordance with CDPHE requirements.

If final analytical results are below 20 Times Rule concentrations, the material then may be transported to a licensed Subtitle D landfill for disposal as non-hazardous solid waste. If the material exceeds regulatory levels, then hazardous waste disposal will be required, in accordance with all applicable regulations.

8.3 Volatile Organic Compounds

Volatile organic compounds that could potentially be encountered at the Site include petroleum hydrocarbons and chlorinated solvents. If the Contractor or MMP Supervisor classifies materials (using PID, odor, staining, etc.) as potentially impacted by petroleum hydrocarbons or chlorinated solvents, the material will be segregated as previously discussed in Section 4.2. If this material has not been previously profiled, one composite sample of soil for every 500 cubic yards of stockpiled soil will be acquired by the MMP Supervisor, and will be analyzed for:

- VOCs using EPA Method 8260C
- RCRA 8 metals using EPA Method 6010/7471 and TCLP lead
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015B

Based on the laboratory analytical results, the soils will be classified and handled based on the procedures presented in Section 4.

8.4 Asbestos-Containing Materials

If suspect ACM is encountered, work in the area must stop immediately, the MMP Supervisor will be notified, and a CABI must be mobilized to the Site to collect samples. If the suspect material is confirmed to be ACM, the handling of the waste must abide by the rules set forth in Section 5.5 of the Solid Waste Regulations, or Regulation No. 8 of the Air Quality Control Commission Regulations, whichever is the more appropriate regulation for the situation. The City Project Manager and Engineer should immediately be notified of the finding.

8.5 Slag, Coal, Ash

If slag, coal, or ash is identified, then the material will be tested for:

- VOCs by EPA Method 8260C
- PAHs by EPA Method 8270

- PCBs using EPA Method 8082
- RCRA 8 metals using EPA Method 6010/7471

Based on the laboratory analytical results, the soils will be classified and handled based on the procedures presented in Section 4.

8.6 Electrical Equipment (PCBs)

If any potential electrical equipment suspected of containing PCBs is identified, it will be segregated, tested and, depending on PCB concentrations, delivered off-site for disposal at a PCB-permitted disposal facility, if necessary. Until testing is completed, any of this electrical equipment visually identified during excavation will be assumed to contain PCBs. Equipment not determined to contain PCBs may then be disposed as solid waste, or recycled. A licensed Subtitle D Landfill will accept materials where PCB concentrations are less than 50 parts per million. If this material will be disposed at a licensed Subtitle D landfill, the MMP Supervisor will work with the City submit copies of analytical reports confirming the PCB concentrations.

8.7 Cleanup Goals and Regulatory Standards

Recent field activities and analytical results indicated metal levels below the corresponding regional screening levels. However, if metals are detected above the RSLs, the concentrations of metals will be compared by the MMP Supervisor to the Industrial RSL, and the PALs as discussed in Section 4.6. If off-site disposal is required at a licensed Subtitle D landfill, the 20-Times Rule and the Hazardous Material Limit will be evaluated.

Regarding corrosivity, the limits in the samples collected will be between 2.0 and 12.6 pH units. The material must not be reactive, and the ignitability limit is 140°F.

If the material is, as evidenced through analytical testing, determined to be characteristically hazardous, the material should be transported to Deer Trail Landfill operated by Clean Harbors Environmental at 108555 East Highway 36 in Deer Trail, Colorado. Additional coordination with the City will be required in this event.

8.8 Groundwater

If groundwater will require discharge, the appropriate CDPHE-WQCD permit(s) must be obtained, and all the standards set forth in the permit must be followed. All reporting requirements (and other conditions), must also be met by the Contractor.

8.9 Other Solid Waste

Other types of waste are not anticipated to be discovered during construction of this project. However, if encountered, the MMP Supervisor will coordinate with the City Environmental Manager to select analytical methods appropriate for characterizing that material in accordance with the U.S. EPA Method SW846.

9. Imported Materials

Any soils, including embankment and/or topsoil, brought to the Site must meet the Non-Impacted/Unrestricted Reuse PAL as described above in Section 4.6.2.

For each source of imported embankment or topsoil:

- The Contractor shall assure and certify that unacceptable levels of hazardous waste and substances, including but not limited to those defined in the 40 CFR Part 261 Subparts C and D, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 101(14) as amended, are not incorporated into the project as a result of importing embankment or topsoil materials.
- The Contractor shall submit such certification to the City Project Manager, signed and stamped (or sealed) by one of the following:
    - A qualified environmental consultant
    - Certified industrial hygienist (CIH)
    - Certified hazardous materials manager (CHMM)
    - Registered professional engineer (PE)
    - Certified Safety Professional (CSP)
    - Registered Environmental Manager (REM)
- Additionally, the material must be visually evaluated by a CABI, and be determined free of any confirmed or suspected ACMs, solid waste, debris, and demolition materials.

If Contractor source material for embankment or topsoil, originating outside of the project limits, is placed at the project and is at any time found to be contaminated with unacceptable levels of hazardous waste or substances, the Contractor shall remove the contaminated material from the project, dispose of it in accordance with applicable laws and regulations, and make necessary restoration.

The cost of complying with these requirements, including sampling, testing, and corrective action by the Contractor, will not be paid for separately, and shall be included in the work.

9.1 Sample Analysis and Frequency

Representative samples of proposed import fill shall be collected in sufficient quantity to determine that the material is not contaminated as determined by the MMP Supervisor and the City. It is recommended that import fill be sampled at a frequency of every 1,000 cubic yards for at least three samples and then resampled for each new import source. After a source has been certified as "clean" additional sampling will be required if there is a change of material (i.e. based on visual observation). Samples shall be analyzed for the following constituents:

- VOCs by EPA Method 8260
- PAHs by EPA Method 8270

- RCRA eight metals using EPA Method 6010/7471

The City Project Manager may adjust the frequency of sample analysis, and analysis requirements.

9.2 Imported Fill Documentation

Certification documentation shall be provided to the City Project Manager for approval prior to being brought to the project site.

10. Reporting

Upon project completion, the MMP Supervisor will prepare a summary report detailing the work performed at the project specifically related to the implementation of this MMP. The report will include the following:

- Property description
- Work description
- Copies of all field logs which detail daily operations
- Summary of analytical results
- Copies of all analytical reports
- Waste manifests for all solid waste, soil, water or other material transported off-site for disposal
- Maps showing the locations of site features related to this MMP, including sample locations, location of wastes discovered, and any other important features identified during the course implementation of this MMP
- Representative site photographs detailing work performed
- Any other documentation detailing important features related to this project

11. References

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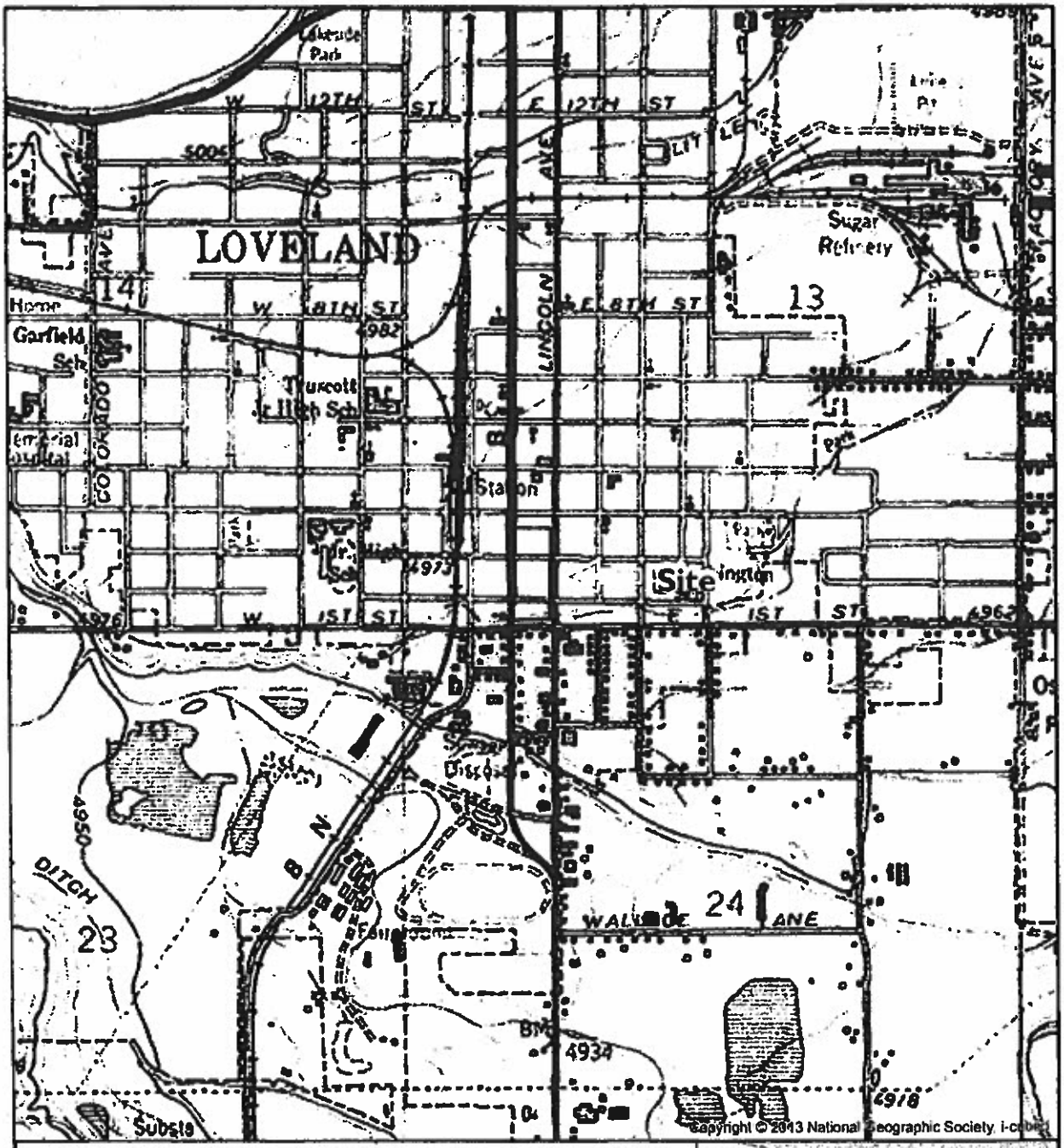
Figures



N

Legend

Site Boundary

USGS 7.5' Topographic Map
Loveland, Colorado 1962 (revised 1984)

0 750 1,500
Feet

Pinyon

SITE LOCATION

South Catalyst Project
Loveland, Colorado

Site Location: Section 13, T 5N, R 69W, 6th Principal Meridian	Drawn By: JAF	Figure: 1
Pinyon Project Number: 1115-1073-01.B002	Reviewed By: TRG	Date: 12/18/2015

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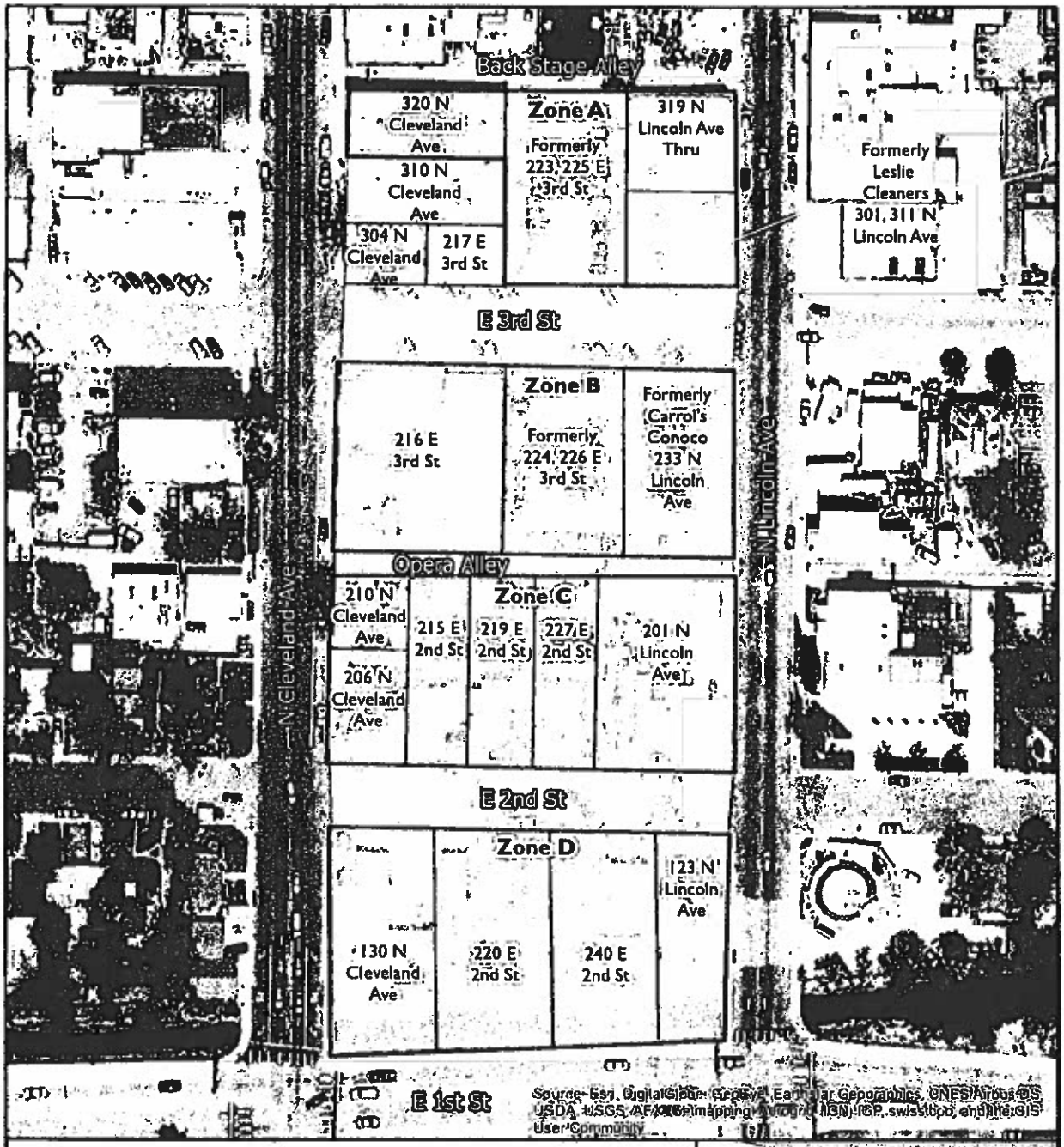

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Legend

Zone Boundary

Parcels

0 50 100 Feet

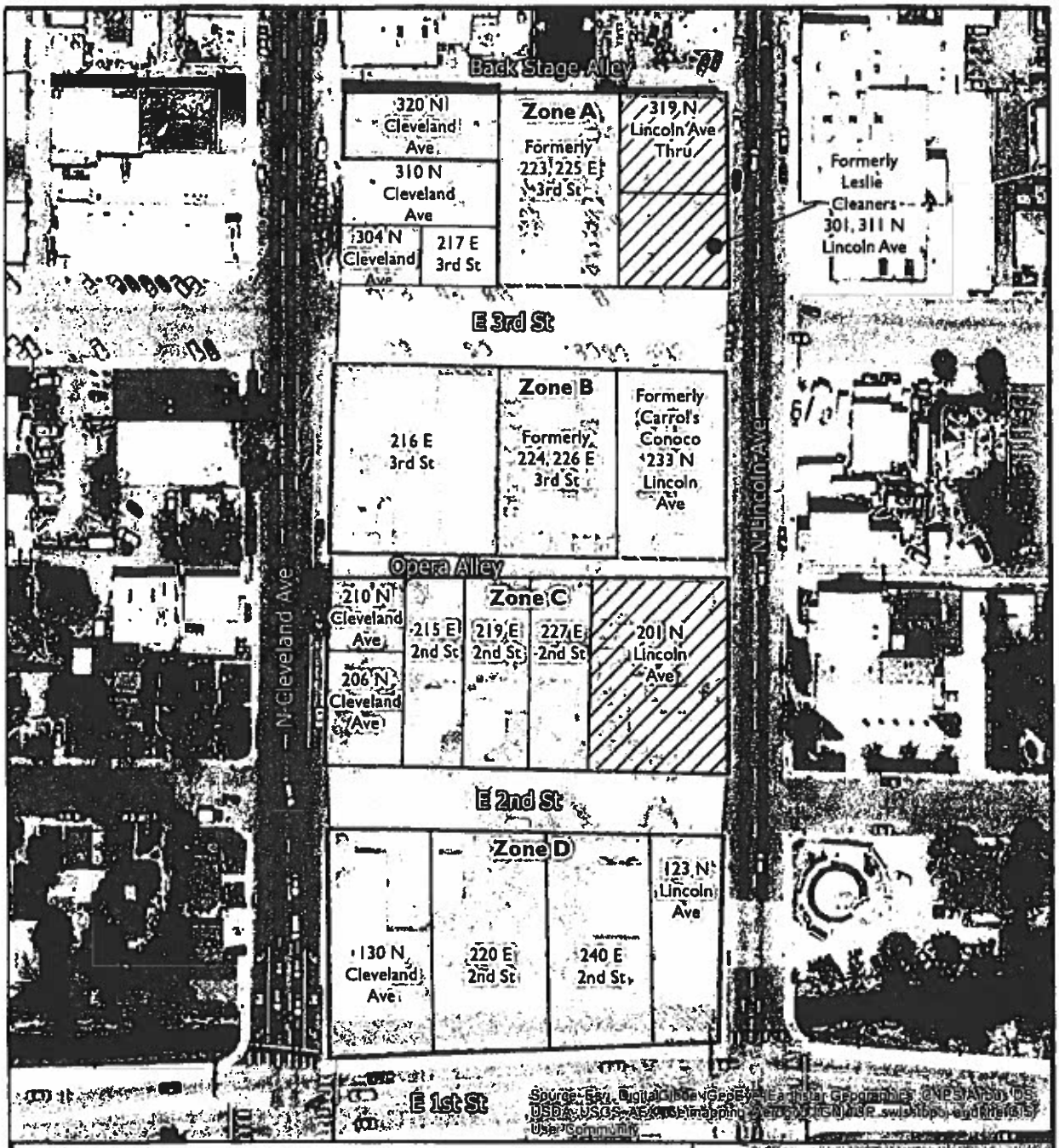
Pinyon

SITE MAP

South Catalyst Project
Loveland, Colorado

Site Location: Section 13, T 5N, R 69W, 6th Principal Meridian	Drawn By: SJA	Figure: 2
Pinyon Project Number: 115-1073-01.8002	Reviewed By: PJM	Date: 2/17/2016

Document Path: Z:\PROJECTS\2015\115107301 South Catalyst Project Loveland\Figures\ArcMap\MXDs\South Catalyst_Project_Site Map_Figure 2.mxd



N

Legend

- Zone Boundary
- Parcels
- 0 50 100 Feet
- Area of Potential Petroleum and Chlorinated Solvent Impacted Soil and Groundwater
- Area of Potential Petroleum Impacted Soil and Groundwater

Pinyon

AREAS OF ENVIRONMENTAL CONCERN

South Catalyst Project
Loveland, Colorado

Site Location: Section 13, T 5N, R 69W, 6th Principal Meridian	Drawn By: SJA	Figure: 3
Pinyon Project Number: 1/15-1073-01.8002	Reviewed By: PJM	Date: 2/18/2016

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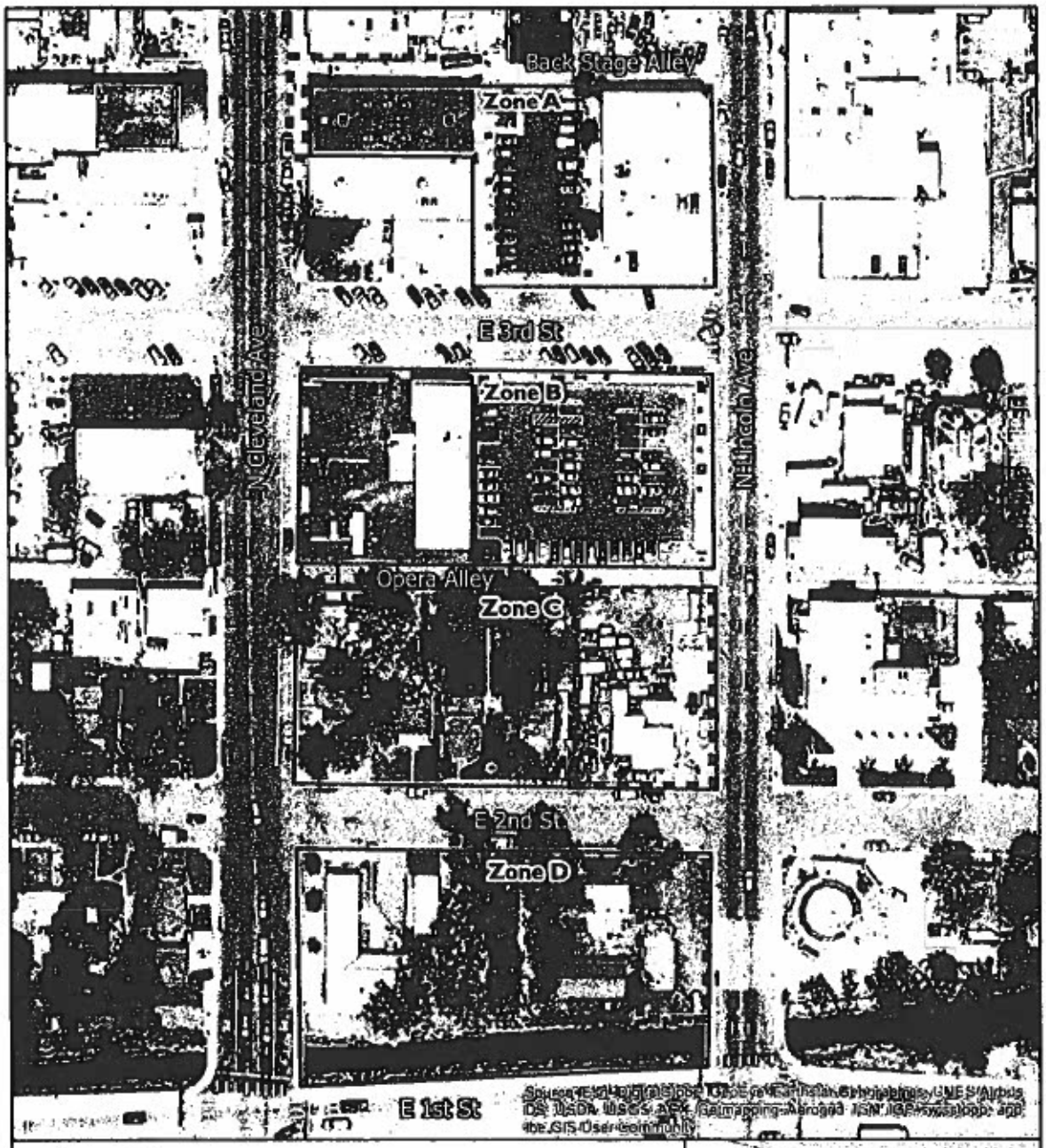

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Legend

- Geophysical Anomalies Indicative of Underground Storage Tanks
- Geophysical Survey Boundary
- Zones

0 50 100 Feet

Pinyon

GEOPHYSICAL SURVEY RESULTS

South Catalyst Project
Loveland, Colorado

Site Location: 13, T 5N, R 69W, 6 Principal Meridian	Drawn By: SJA	Figure: 4
Pinyon Project Number: 1/15-1073-01.8002	Reviewed By: PJM	Date: 2/18/2016

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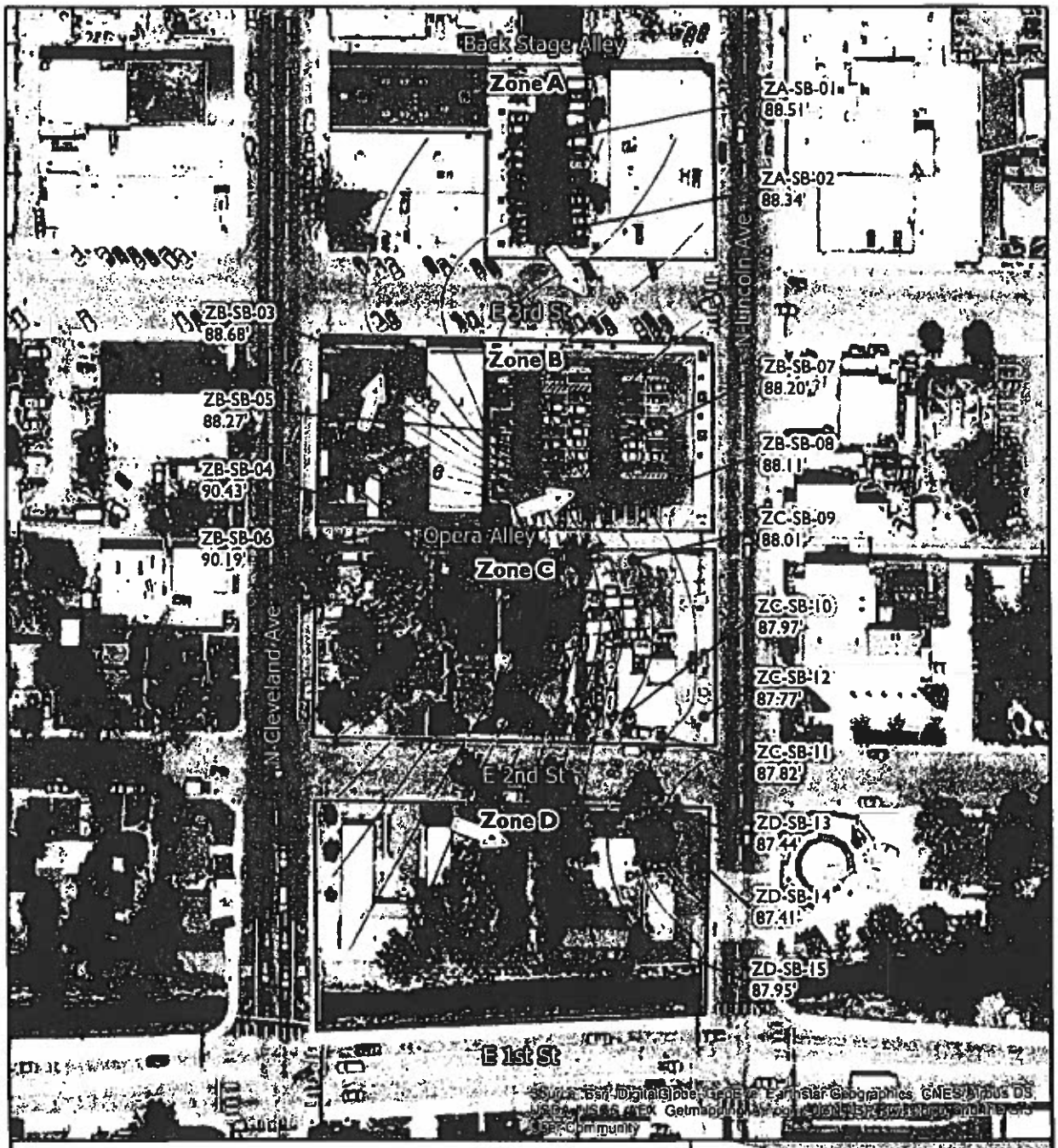

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Legend

- Soil Boring and Monitoring Well Locations with Relative Groundwater Elevations (ft)
- Relative Groundwater Elevation (ft)
- Approximate Groundwater Flow Direction
- Zone Boundary

0 50 100 Feet

Pinyon

RELATIVE GROUNDWATER ELEVATION ON 12/7/15

South Catalyst Project
Loveland, Colorado

Site Location: Section 13, T 5N, R 69W, 6th Principal Meridian	Drawn By: SJA	Figure: 5
Pinyon Project Number: 115-1073-01.8002	Reviewed By: TRG	Date: 2/18/2016

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Pinyon

Appendix A Environmental Protection Agency Regional Screening Levels

Key: I = IRIS, P = PPRTV; A = ATSDR; C = Cal EPA, X = APPENDIX PPRTV SCREEN (See FAQ #27), H = HEAST, J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office, S = see user guide Section 5, L = see user guide on lead; M = mutagen; V = volatile; R = RBA applied (See User Guide for Arsenic notice) , c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL, a = noncancer; m = Concentration may exceed ceiling limit (See User Guide), s = Concentration may exceed Csat (See User Guide). SSL values are based on DAF=1

Toxicity and Chemical-specific Information																												Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day)$^{-1}$	Note	Weight of Evidence	IUR (µg/m^3)$^{-1}$	Note	Weight of Evidence	RfD$_o$ (mg/kg-day)	Note	Weight of Evidence	RfC$_i$ (mg/m^3)	Note	Weight of Evidence	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	key	SSL (mg/kg)	key	SSL (mg/kg)
1.8E-02	C		5.1E-06	C		1.2E-01	I						1	0.1		ALAR	1596-84-5	3.5E+01	c*	1.5E+02	c*	5.6E-01	c	2.4E+00	c	4.3E+00	c*			9.6E-04	c*		
6.7E-03	I					4.0E-03	I						1	0.1		Amphibole	30989-19-1	2.5E+01	n	2.6E+02	c**					8.0E+00	n			1.6E-03	n		
			2.2E-06						9.8E-03	I	V		1		1.1E+05	Acetaldehyde	75-07-0	9.2E+00	n	3.4E+01	n	9.4E-01	n	3.9E+00	n	1.5E+00	n			3.6E-01	n		
						2.5E-02	I						1	0.1		Acetonitrile	34284-92-1	1.3E+02	n	1.6E+03	n					3.5E+01	n			7.5E-02	n		
						9.0E-01	I	3.1E+01	A	V			1		1.1E+05	Acetone	67-64-1	8.1E+05	n	6.7E+04	n	3.2E+03	n	1.4E+04	n	1.4E+03	n			2.0E-01	n		
								2.9E-03	X	V			1		1.1E+05	Acetone Cyanohydrin	75-86-5	8.0E+00	n	2.1E+01	n	2.1E-01	n	9.0E-01	n	4.2E-01	n			6.4E-03	n		
								6.0E-02	I	V			1		1.3E+05	Acetonitrile	75-05-8	6.1E+01	n	3.4E+02	n	9.3E+00	n	2.7E+01	n	1.5E+01	n			2.0E-03	n		
						1.6E-01	I			V			1		2.6E+03	Acetophenone	98-86-2	7.9E+02	n	1.2E+04	ns					1.8E+02	n			6.6E-02	n		
3.6E-09	C		1.3E-03	C									1	0.1		Acetylaminofluorene, 2-	53-96-3	1.4E-01	c	6.0E-01	c	2.2E-03	c	9.4E-03	c	1.6E-02	c			7.2E-05	c		
						5.0E-04	I	2.0E-05	I	V			1		2.3E+04	Acrolein	107-02-8	1.4E-02	n	6.0E-02	n	2.1E-03	n	9.0E-03	n	4.2E-03	n			6.4E-07	n		
5.0E-01	I		1.8E-04	I		2.0E-03	I	8.6E-03	I		M		1	0.1		Acrylamide	79-06-1	2.4E-01	c*	4.6E+00	c*	1.0E-02	c*	1.2E-01	c*	5.0E-02	c*			1.1E-05	c*		
						8.0E-01	I	1.6E-03	I	V			1		1.1E+05	Acrylic Acid	79-10-7	8.0E+00	n	4.2E+01	n	1.0E-01	n	4.4E-01	n	2.1E+01	n			4.3E-05	n		
5.4E-01	I		6.8E-05	I		4.0E-02	A	2.0E-03	I	V			1		1.1E+04	Acrylonitrile	107-13-1	2.5E-01	c**	1.1E+00	c**	4.1E-02	c**	1.8E-01	c**	5.2E-02	c**			1.1E-04	c**		
								8.6E-03	P				1	0.1		Adiponitrile	111-69-3	8.9E+05	nn	3.6E+06	nn	8.3E-01	n	2.6E+00	n								
9.4E-02	C					1.0E-02	I						1	0.1		Aldrin	309-00-2	2.7E+00	n	6.2E+01	n					1.8E+00	n	2.0E+00		6.6E-04	n	1.8E-03	
						1.0E-03							1	0.1		Aldicarb	116-06-3	6.3E+00	n	8.2E+01	n					2.0E+00	n	3.0E+00		4.6E-04	n	7.5E-04	
						1.0E-03	I						1	0.1		Aldicarb Sulfone	1646-88-4	6.2E+00	n	8.2E+01	n					2.0E+00	n	2.0E+00		4.6E-04	n	6.4E-04	
													1	0.1		Aldicarb sulfoxide	1646-87-3											4.0E+00				6.8E-04	
1.7E+01	I		4.9E-03	I		3.0E-05	I			V			1			Aldrin	309-00-2	3.9E-02	c**	1.6E-01	c*	5.7E-04	c	2.5E-03	c	6.5E-04	c*			1.8E-04	c*		
						2.5E-01	I						1	0.1		Ally	74223-64-6	1.0E+03	n	2.1E+04	n					4.9E+02	n			1.1E-01	n		
						5.0E-03	I	1.6E-04	X	V			1		1.1E+05	Allyl Alcohol	107-18-6	3.5E-01	n	1.5E+00	n	1.0E-02	n	4.4E-02	n	2.1E-02	n			4.3E-03	n		
2.1E-02	C		6.0E-06	C				1.0E-01	*	V			1		1.4E+05	Allyl Chloride	107-05-1	7.7E+00	n	8.8E+01	n	1.0E-01	n	4.4E+01	n	2.1E+01	n			6.7E-03	n		
						1.0E+00	P	5.0E-03	P				1			Aluminum	7429-90-5	7.7E+03	n	1.1E+05	nn	5.2E-01	n	2.2E+00	n	2.0E+03	n			3.6E+02	n		
						4.0E-04	I						1			Aluminum Phosphide	[illegible]	3.1E+00	n	4.7E+01	n					6.0E-01	n						
			3.0E-04	I									1	0.1		[illegible]	[illegible]	1.9E+01	n	2.5E+02	n					5.9E+01	n			2.1E-02	n		
			9.8E-03	I									1	0.1		Ametryn	834-12-8	5.7E+01	n	7.4E+02	n					1.5E+01	n			1.8E-02	n		
2.1E+01	C		8.9E-03	C									1	0.1		Aminobiphenyl, 4-	92-67-1	2.0E-02	c	1.1E-01	c	4.7E-04	c	2.0E-03	c	3.0E-03	c			1.9E-05	c		
						6.0E-02	P						1	0.1		Aminodiphenyl, m-	[illegible]	9.1E+00	n	6.6E+03	n					1.8E+02	n			6.1E-02	n		
						2.0E-02	P						1	0.1		Aminophenol, p-	123-30-8	1.3E+02	n	1.6E+03	n					4.0E+01	n			1.3E-02	n		
			2.9E-03	I									1	0.1		Amitraz	33089-61-1	1.6E+01	n	2.1E+02	n					8.2E+01	n			4.3E-01	n		
								1.0E-01	I	V			1			Ammonia	7664-41-7					1.7E+01	n	4.4E+01	n								
			2.0E-01	I									1			Ammonium Sulfamate	7773-06-0	1.0E+03	n	2.3E+04	n					4.0E+02	n				n		
								3.6E-03	X	V			1		1.4E+04	Amyl Alcohol, tert-	75-85-4	8.2E+00	n	3.4E+01	n	3.1E-01	n	1.3E+00	n	6.3E-01	n			1.1E-04	n		
5.7E-03	I		1.5E-06	C		1.5E-01	P	1.0E-03	I				1	0.1		Aniline	62-53-3	4.4E+00	n	4.8E+01	c**	1.0E-01	n	4.4E-01	n	1.3E-01	c**			4.5E-03	c**		
4.0E-02	P					2.0E-03	X						1	0.1		Anthraquinone [9,10-	84-65-1	1.3E+01	n	5.7E+01	c**					1.4E+00	c**			1.4E-02	c**		
						4.0E-04	I						1			Antimony (metallic)	7440-36-0	3.1E+00	n	4.7E+01	n					7.0E-01	n	6.0E+00		3.6E-02	n	9.7E-01	
						5.0E-04	H						0.15			Antimony Pentoxide	1314-60-9	3.9E+00	n	5.9E+01	n					9.7E-01	n				n		
						6.0E-04	H						0.15			Antimony Potassium Tartrate	1110-1-1-1	7.0E+00	n	1.1E+02	n					1.8E+00	n				n		
						4.0E-04	H						0.15			Antimony Tetroxide	1332-81-6	3.1E+00	n	4.7E+01	n					7.0E-01	n				n		
								2.0E-04	I				0.15			Antimony Trioxide	1309-64-4	2.6E+00	n	1.2E+02	nn	2.1E-02	n	8.8E-02	n								
			1.3E-02	I									1	0.1		Apollo	74115-24-5	9.2E+01	n	1.1E+03	n					2.3E+01	n			1.4E+00	n		
2.0E-02	I		7.1E-05			6.0E-02	H						1	0.1		Aramite	140-57-8	2.2E+01	c*	9.2E+01	c*	4.0E-01	c	1.7E+00	c	1.3E+00	c*			1.6E-02	c*		
1.5E+00	I		4.3E-03	I		3.0E-04	I	1.5E-06	C				1	0.8		Arsenic, Inorganic	7440-38-2	6.8E-01	c**R	3.0E+00	c**R	4.5E-04	c**	2.0E-03	c**	5.2E-02	c*	1.0E-01		1.2E-03	c*	1.9E-01	
						3.5E-06	C	8.6E-05	I				1			Arsine	7784-42-1	2.7E-02	n	4.1E-01	n	5.2E-03	n	2.2E-02	n	7.0E-03	n				A		
						9.0E-03	I						1	0.1		Assure	76578-14-8	5.7E+01	n	7.4E+02	n					1.3E+01	n			1.8E-01	n		
			5.4E-04	I									1	0.1		Asulam	3337-71-1	3.2E+02	n	4.1E+03	n					1.0E+02	n			2.1E-02	n		
2.3E-01	C		3.8E-02	I									1	0.1		Atrazine	1912-24-9	2.4E+00	c*	1.0E+01	c					3.0E+00	c	3.0E+00		1.6E-04	c	1.6E-03	
8.8E-01	C		2.5E-04	C									1	0.1		Aureomycin	492-86-6	6.2E-01	c	2.6E+00	c	1.1E-02	c	4.8E-02	c	6.6E-02	c			6.6E-04	c		
						4.0E-04	I						1	0.1		Auramine B1	4511-22-3	2.5E+00	n	3.3E+01	n					8.2E+01	n			1.6E-03	n		
1.1E-01	I		3.1E-05	I						V			1			Azobenzene	103-33-3	5.6E+00	c	2.6E+01	c	9.1E-02	c	4.0E-01	c	1.2E-01	c			8.3E-04	c		
						1.0E+00	P	7.0E-03	P				1	0.1		Azodicarbonamide	123-77-3	8.8E+02	n	4.9E+03	n	7.3E-04	n	3.1E-03	n	2.9E+03	n			6.8E-01	n		
			2.6E-01	I		8.0E-04	H						0.07			Barium	7440-39-3	1.5E+03	n	1.2E+04	n	5.2E-02	n	2.2E-01	n	2.0E+03	n	2.0E+03		1.3E+01	n	6.8E+01	
5.0E-01	C		1.5E-01	C		2.0E-02	C	2.9E-04	C		M		0.025			Barium Chromate	10294-40-3	3.0E-01	c	6.2E+00	c	8.9E-06	c	8.2E-05	c	4.1E-02	c				n		
						4.0E-03	I						1	0.1		Baygon	114-26-1	2.9E+01	n	3.3E+02	n					7.8E+00	n			2.0E-03	n		
						7.0E-02	I						1	0.1		Bayleton	43121-43-3	1.4E+02	n	2.5E+03	n					5.2E+01	n			4.2E-02	n		
						2.0E-02	I						1	0.1		Baythroid	68359-37-5	1.4E+02	n	2.1E+03	n					1.2E+01	n			3.1E+00	n		
						3.0E-01	I			V			1			Benefin	1861-40-1	2.3E+03	n	3.5E+04	n					1.7E+02	n			5.6E+00	n		
			8.8E-02	I									1	0.1		Benomyl	17804-35-2	2.2E+02	n	4.1E+03	n					9.1E+01	n			4.5E-02	n		
			3.0E-02	I									1	0.1		Bensulfuron	25057-89-0	1.4E+02	n	2.5E+03	n					5.7E+01	n			1.2E-02	n		
			1.0E-01	I						V			1		1.2E+03	Benzaldehyde	100-52-7	7.8E+02	n	1.2E+04	ns					1.8E+02	n			4.3E-02	n		
5.5E-02	I		1.9E-06	I		4.0E-03	I	3.6E-02	I	V			1		1.6E+03	Benzene	71-43-2	1.2E+00	c**	5.1E+00	c**	3.6E-01	c**	1.5E+00	c**	5.0E+00	c**	5.0E+00		2.9E-03	c**	2.6E-02	
1.8E-01	X					3.0E-04	X						1	0.1		Benzenedicarbo-2-methyl sulfate 1,4-	6369-59-1	1.9E+00	n	2.3E+01	c**					8.6E-01	n			1.7E-04	n		
						1.0E-03	P			V			1		1.2E+03	Benzenethiol	108-98-5	7.8E+00	n	1.2E+02	n					1.7E+00	n			1.1E-02	n		
2.5E-02	I		6.7E-02	I		3.0E-03	I				M		1	0.1		Benzene	92-87-5	5.3E-04	c	1.0E-02	c	1.1E-05	c	1.8E-04	c	1.1E-04	c			2.1E-07	c*		
						4.0E+00	I						1	0.1		Benzoic Acid	65-85-0	2.5E+04	n	3.3E+05	nn					7.3E+03	n			1.8E+00	n		

Key: 1 = IRIS, P = PPRTV, A = ATSDR, C = CalEPA, X = APPENDIX PPRTV SCREEN (See FAQ #27), H = HEAST, J = New Jersey, O = EPA Office of Water, F = See FAQ, E = Environmental Criteria and Assessment Office, S = see user guide Section 5, L = see user guide on lead, M = mutagen, V = volatile, R = RBA applied (See User Guide for Arsenic notice), c = cancer, " = where n SL < 100X c SL, "" = where n SL < 10X c SL, n = noncancer, m = Concentration may exceed ceiling limit (See User Guide), s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information																		Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	o y	IUR (ug/m^3)$^{-1}$	o y	RfD_o (mg/kg-day)	o y	RfC_i (mg/m^3)	o y c	mu-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	SSL (mg/kg)	key	DAF 1 (mg/kg)
				2.6E-03	H				1	0.1		Chloroacetic Acid	79-11-8	1.3E+01	n	1.6E+02	n					4.1E+00	n	6 0E+01	6.1E-02	n	1.2E-02
					3.0E-06	I			1	0.1		Chloroacetophenone, 2-	532-27-4	4.3E+03	n	1.6E+04	n	3.1E-03	n	1.1E-02	n						
2.8E-01	P			4.0E-03	I				1	0.1		Chloroaniline, p-	106-47-8	1.7E+00	c**	1.9E+01	c*					3.6E+01	c*		1.9E-01	c*	
				2.0E-02	I	8.0E-02	P	V	1		7.8E+02	Chlorobenzene	108-90-7	2.8E+01	n	1.3E+02	n	5.2E+00	n	2.2E+01	n	7.8E+00	n	1.0E+02	5.1E-01	n	6.8E-02
1.1E-01	C	3.1E-05	C	2.0E-02	I				1	0.1		Chlorobenzilate	510-15-6	4.9E+00	c*	2.1E+01	c*	6.1E-02	c	4.0E-01	c	3.1E-01	c*		1.9E-03	c*	
				3.0E-02	X				1	0.1		Chlorobenzoic Acid, p-	74-11-3	1.1E+02	n	2.2E+03	n					5.1E+03	n		1.3E-01	n	
				3.0E-03	P	3.0E-01	P	V	1		1.2E+02	Chlorobenzotrifluoride, 4-	98-56-6	2.1E+01	n	2.8E+02	m	3.1E+01	n	1.2E+02	n	3.0E+00	n		1.7E-02	n	
				4.0E-02	P			V	1		7.3E+02	Chlorobutane, 1-	109-69-3	3.1E+02	n	4.7E+03	m					6.4E+01	n		2.6E-02	n	
					5.0E-01	I	V		1		1.7E+03	Chlorodifluoromethane	75-45-6	4.9E+03	m	2.1E+04	m	5.2E+01	n	1.8E+04	n	1.4E+04	n		4.2E+00	n	
				2.0E-02	P			V	1		1.1E+05	Chloroethanol, 2-	107-07-3	1.8E+02	n	2.3E+03	n					4.0E+01	n		6.1E-01	n	
3.1E-02	C	2.3E-05	I	1.0E-02	I	8.6E-02	A	V	1		2.5E+03	Chloroform	67-66-3	3.2E-01	c*	1.4E+00	c*	1.2E-01	c*	5.3E-01	c*	2.2E-01	c*	8.0E-01(F)	6.1E-03	c*	2.0E-02
					8.6E-02	I	V		1		1.5E+03	Chloromethane	74-87-3	1.1E+01	n	4.8E+01	n	9.4E+00	n	3.9E+01	n	1.9E+01	n		4.1E-01	n	
2.4E+00	C	9.9E-04	C					V	1		2.8E+04	Chloromethyl Methyl Ether	107-30-2	2.0E-02	c	8.9E-02	c	4.1E-03	c	1.8E-02	c	6.5E-03	c		1.4E-03	c	
3.0E-01	P			3.0E-03	P	1.0E-05	X		1	0.1		Chloronitrobenzene, o-	88-73-3	1.8E+00	c*	7.7E+00	c*	1.0E-03	n	4.4E-03	n	2.3E-01	c*		8.3E-04	c*	
8.3E-01	P			1.0E-03	P	6.0E-04	P		1	0.1		Chloronitrobenzene, p-	100-00-5	6.3E+00	n	8.2E+01	n	6.3E+00	n	2.7E+01	n	1.8E+00	n		2.1E-03	n	
				5.0E-03	I			V	1		2.2E+04	Chlorophenol, 2-	95-57-8	3.9E+01	n	5.0E+02	n					8.1E+00	n		7.4E-01	n	
					4.0E-04	C	V		1		8.3E+02	Chloropicrin	76-06-2	2.0E-01	n	8.3E-01	n	4.3E-02	n	1.8E-01	n	8.3E-02	n		2.1E-01	n	
3.1E-03	C	8.9E-07	C	1.4E-02	I				1	0.1		Chlorothalonil	1897-45-6	9.5E+01	n	7.4E+02	c**	3.7E+00	c	1.4E+01	c	2.2E+03	c**		6.1E-02	c**	
				2.0E-02	I			V	1		9.1E+02	Chlorotoluene, o-	95-49-8	1.8E+02	n	2.3E+03	m					2.4E+01	n		2.2E-02	n	
				2.0E-02	X			V	1		2.5E+02	Chlorotoluene, p-	106-43-4	1.8E+02	n	2.3E+03	m					2.4E+01	n		2.2E-02	n	
2.4E+02	C	6.9E-02	C						1	0.1		Chlorpyrifos	2921-88-2	2.3E-01	c	9.8E-01	c	4.1E-05	c	1.8E-04	c	3.5E-04	c		7.9E-03	c	
				2.0E-01	I				1	0.1		Chlorpropham	101-21-3	1.3E+03	n	1.6E+04	n					2.8E+02	n		3.6E-01	n	
				1.0E-03	A				1	0.1		Chlorpyrifos	2921-88-2	8.3E+00	n	8.2E+01	n					6.4E+01	n		6.3E-02	n	
				1.6E-02	H				1	0.1		Chlorpyrifos Methyl	5598-13-0	7.0E+01	n	8.2E+02	n					1.2E+01	n		5.4E-02	n	
				6.0E-02	I				1	0.1		Chlorsulfuron	64902-72-3	3.7E+02	n	4.1E+03	n					9.9E+01	n		6.3E-02	n	
				8.0E-04	H				1	0.1		Chlorthiophos	60238-56-4	5.1E+00	n	6.6E+01	n					2.8E+01	n		7.3E-03	n	
				1.5E+00	I					0.013		Chromium (III), insoluble salts	16065-83-1	1.2E+04	n	1.5E+05	nm					2.3E+03	n		4.8E+02	n	
5.0E-01	J	8.4E-02	S	3.0E-03	I	1.0E-04	I	M		0.026		Chromium(VI)	18540-29-9	3.0E-01	c*	6.3E+00	c*	1.2E-05	c	1.5E-04	c	3.5E-02	c		6.1E-04	c	1.9E-05
										0.013		Chromium, Total	7440-47-3											1.0E+02			1.9E+05
		1.2E-01	P	3.0E-04	P	6.0E-06	P		1			Cobalt	7440-48-4	2.3E+00	n	3.5E+01	n	3.1E-04	c**	1.4E-03	c**	8.0E-01	n		2.1E-02	n	
		6.2E-04	I					V	M	1		Cobalt-Dicyclopentadienyl	60827-45-3					1.8E-03	c	2.0E-02	c						
				4.0E-02	H					1		Copper	7440-50-8	3.1E+02	n	4.7E+03	n					8.0E+01	n	1.3E+03	2.8E+00	n	4.8E+01
				8.0E-02	I	8.0E-01	C			1		Cresol, m-	108-39-4	3.2E+02	n	4.1E+03	n	8.3E+01	n	2.8E+02	n	8.2E+03	n		7.4E-02	n	
				5.0E-02	I	8.0E-01	C			1		Cresol, p-	106-44-5	1.7E+02	n	4.1E+03	n	8.3E+01	n	2.8E+02	n	8.2E+01	n		7.3E-02	n	
				1.0E-01	A	8.0E-01	C			1		Cresol, p-chloro-m-	59-50-7	6.3E+02	n	8.2E+03	n	8.3E+01	n	2.8E+02	n	1.4E+02	n		1.7E-01	n	
				1.0E-01	A	6.0E-01	C			1		Crimidine	2312-76-7	8.3E+02	n	8.2E+03	n	6.3E+01	n	2.8E+02	n	1.8E+02	n		1.1E-01	n	
1.8E+00	H			1.5E-03	P			V		1	1.7E+04	Crotonaldehyde, trans-	123-73-9	3.7E-01	c*	1.7E+00	c*					4.8E-02	c*		8.3E-06	c*	
				1.0E-01	I	4.0E-01	I	V		1	7.2E+02	Cumene	98-82-8	1.8E+02	n	6.8E+02	m	4.2E+01	n	1.8E+02	n	4.5E+01	n		7.9E-02	n	
3.2E-01	C	8.3E-06	C							1	0.1	Cupferron	135-20-6	2.5E+00	c	1.0E+01	c	4.9E-02	c	1.8E-01	c	3.5E-01	c		6.1E-04	c	
8.4E-01	H			2.0E-03	H					1	0.1	Cyanazine	21725-46-2	8.3E-01	c*	2.7E+00	c*					6.7E-02	c*		4.1E-05	c*	
												Cyanides															
				1.9E-03	I					1		-Calcium Cyanide	592-01-8	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
				8.0E-03	I					1		-Copper Cyanide	544-92-3	3.1E+01	n	4.8E+02	n					1.2E+01	n			n	
				8.0E-04	I	8.0E-04	S	V		1	9.1E+01	-Cyanide (CN-)	57-12-5	2.7E+01	n	1.2E+03	n	8.3E-02	n	3.5E-01	n	1.2E+01	n	2.0E+02	1.1E-03	n	9.2E+00
				1.9E-03	I			V		1		-Cyanogen	460-19-5	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
				8.0E-02	I			V		1		-Cyanogen Bromide	506-68-3	7.0E+02	n	1.1E+04	n					1.8E+02	n			n	
				3.0E-02	I			V		1		-Cyanogen Chloride	506-77-4	3.1E+02	n	1.2E+03	n					1.0E+02	n			n	
				6.0E-04	I	8.0E-04	I	V		1	1.0E+01	-Hydrogen Cyanide	74-90-8	2.3E+00	n	1.9E+01	n	8.3E-02	n	3.5E-01	n	1.8E+01	n		1.8E-03	n	
				2.0E-03	I					1		-Potassium Cyanide	151-50-8	1.4E+01	n	2.3E+02	n					4.0E+00	n			n	
				5.0E-03	I					0.04		-Potassium Silver Cyanide	506-61-6	3.9E+01	n	5.0E+02	n					8.2E+00	n			n	
				1.0E-01	I					0.04		-Silver Cyanide	506-64-9	7.8E+02	n	1.2E+04	n					1.8E+02	n			n	
				1.0E-03	I					1		-Sodium Cyanide	143-33-9	7.8E+00	n	1.2E+02	n					2.0E+00	n	2.0E+02		n	
				3.0E-04	P					1		-Thiocyanates	NA	1.6E+00	n	2.3E+01	n					4.0E+01	n			n	
				2.0E-04	X			V		1		-Thiocyanic Acid	463-56-9	1.6E+00	n	2.3E+01	n					4.0E+01	n			n	
				8.0E-02	I					1		-Zinc Cyanide	557-21-1	3.9E+02	n	5.0E+03	n					1.0E+02	n			n	
						8.0E-05	I	V		1	1.2E+02	Cyclohexane	110-82-7	6.3E+02	nv	2.7E+03	nv	6.3E+02	n	2.7E+03	n	1.3E+03	n		1.3E+00	n	
2.3E-02	H									1	0.1	Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.4E+01	n	1.0E+02	c					2.4E+00	n		1.4E-02	n	
				6.0E+00	I	7.0E-01	P	V		1	5.1E+03	Cyclohexanone	108-94-1	7.8E+03	n	1.2E+04	m	7.3E+01	n	3.1E+02	n	1.4E+02	n		3.4E-02	n	
				5.0E-03	P	1.0E+00	X	V		1	2.8E+02	Cyclohexene	110-83-8	3.1E+01	n	3.1E+02	m	1.8E+02	n	4.4E+02	n	7.0E+00	n		4.6E-01	n	
				2.0E-01	I			V		1	2.8E+03	Cyclohexylamine	108-91-8	1.8E+03	n	2.3E+04	n					3.4E+02	n		1.8E-01	n	
				3.0E-03	I					0.1		Cyclohexylchloramide	66085-86-4	3.3E+01	n	4.1E+02	n					1.0E+01	n		6.6E-02	n	
				1.0E-02	I					0.1		Cypermethrin	52315-07-8	6.3E+01	n	8.2E+02	n					2.0E+01	n		3.2E+00	n	
				7.5E-03	I					0.1		Cyromazine	66215-27-8	4.7E+01	n	6.2E+02	n					1.5E+01	n		3.0E-03	n	
2.4E-01	I	8.9E-05	C							1	0.1	DDC	72-54-8	2.3E+00	c	9.8E+00	c	4.1E-02	c	1.8E-01	c	3.1E-02	c		7.3E-04	c	

Key: I = IRIS, P = PPRTV, A = ATSDR; C = Cal EPA, X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office; S = see user guide Section 5, L = see user guide on lead; M = mutagen; V = volatile; R = RSA applied (See User Guide for Arsenic notice); c = cancer; * = where: n SL < 100X c SL, ** = where n SL < 10X c SL, n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF = 1

Toxicity and Chemical-specific Information																												Screening Levels																				Protection of Ground Water SCLs			
SFO (mg/kg-day)$^{-1}$	c	IUR (ug/m^3)$^{-1}$	c	RfD$_o$ (mg/kg-day)	c	RfC$_i$ (mg/m^3)	c	v	c	muta-gen	GIABS	ABS	C$_{sat}$ (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Protection of Groundwater SSL (mg/kg)	key	Protection of Groundwater SSL (mg/kg)
3.4E-01	I	9.7E-05	C					V			1			4,4'-DDE, p,p'	72-55-9	2.0E+00	n	9.3E+00	c	2.8E-02	n	1.3E-01	c	4.8E-02	n		1.9E-02	c		
3.4E-01	I	9.7E-05	I	5.0E-04	I						1	0.03		DDT	50-29-3	1.9E+00	n**	8.9E+00	c**	2.8E-02	c	1.3E-01	c	2.3E-01	c**		1.7E-02	c**		
				1.0E-02	I						1	0.1		Decthal	1861-32-1	6.3E+01	n	3.2E+02	n					1.2E+01	n		1.1E-02	n		
				3.0E-03	I						1	0.1		Kelevan	4234-79-1	1.4E+01	n	2.1E+03	n					8.4E+01	n	2.1E+02	1.2E-02	n	2.1E-02	
7.0E-04	I			7.0E-03	I						1	0.1		Decaboromodiphenyl ether (2,2',3,3',4,4',5,5',6,6'-(DBDE-209))	1163-19-5	4.4E+01	n	6.7E+02	n					1.4E+01	n		7.8E+00	s		
				4.0E-05	I						1	0.1		Dienedan	8065-48-3	2.5E+01	n	3.3E+00	n					8.7E-02	n			n		
1.2E-03	I			6.0E-01	I						1	0.1		1,4-dimethylbenzene	123-23-1	4.5E+02	c**	1.9E+03	c*					6.3E+01	c*	4.0E+02	4.7E+02	s*	3.4E+01	
6.1E-02	H										1	0.1		Sulfate	2383-10-4	8.8E+00	c	3.4E+01	c					5.2E+01	c		1.8E+04	c		
				7.0E-04	A						1	0.1		Diazinon	333-41-5	4.4E+00	n	5.7E+01	n					1.0E+00	n		8.5E-03	n		
				1.0E-02	X			V			1			1,3-dimethylbenzene	108-38-3	7.8E+01	n	1.2E+03	n					6.3E+01	n		1.3E+01	n		
8.0E-01	P	8.8E-03	P	2.0E-04	P	2.0E-04	I	V	M		1		8.8E+02	1-chloro-3-chloropropane, 1,2-	96-12-8	5.3E-03	c*	8.4E-02	c*	1.7E-04	c	2.0E-03	c*	3.3E-04	c**	2.0E-01	1.4E-07	c**	8.8E-06	
				4.0E-04	X			V			1		1.6E+02	1-chloropropane, 1,3-	109-30-1	1.1E+00	n	4.7E+01	n					5.3E+01	n		6.1E-04	n		
				1.0E-02	I			V			1			1,4-dichlorobenzene, 1,4-	106-37-6	2.6E+01	n	1.1E+03	n					1.3E+01	n		1.2E-01	n		
8.4E-02	I	2.7E-05	C	2.0E-02	I			V			1		6.8E+02	Dichlorodifluoromethane	124-48-1	7.5E-01	c	3.3E+00	c	1.0E-01	c	4.6E-01	c	1.7E-01	c	8.0E+01(F)	4.8E-05	c	2.1E-02	
2.0E+00	I	8.8E-04		9.0E-03	I	8.6E-03	I	V			1		1.3E+03	1,3-dichloropropene, 1,3-	126-89-4	3.8E-02	c	1.8E-01	c	4.7E-03	c	2.0E-02	c	7.5E-03	c	5.0E-02	2.0E-04	c	1.4E-03	
				1.0E-02	H	4.0E-03	X	V			1		2.8E+03	Dichloromethane (Methylene Bromide)	74-95-3	2.3E+00	n	9.8E+00	n	4.2E-01	n	1.8E+00	n	8.1E-01	n		2.6E-04	n		
				3.0E-04	P						1	0.1		Dibutyltin Compounds	NA	1.9E+00	n	2.6E+01	n					8.8E+01	n			n		
				3.0E-02	I						1	0.1		Dicamba	1918-00-9	1.9E+02	n	2.5E+03	n					5.7E+01	n		1.6E-02	n		
		1.6E-05	P					V			1		5.2E+02	Dichloro-2-butene, 1,4-	764-41-0	6.3E-03	c	3.8E-02	c	8.7E-04	c	2.1E-03	c	1.3E-03	c		6.3E-07	c		
		4.2E-03	P					V			1		6.2E+02	Dichloro-2-butene, cis-1,4-	1476-11-5	7.4E-03	c	3.2E-02	c	8.7E-04	c	2.0E-03	c	1.3E-03	n		6.2E-07	c		
		4.2E-03	P					V			1		7.8E+02	Dichloro-2-butene, trans-1,4-	110-57-6	7.4E-03	c	3.2E-02	c	8.7E-04	c	2.0E-03	c	1.3E-03	c		6.2E-07	c		
1.3E-02	I			4.0E-03	I						1	0.1		Dichloroacetic Acid	79-43-6	1.1E+01	c**	4.8E+01	c**					1.5E+02	c**	8.0E+00	3.1E-04	c**	1.2E-02	
				9.0E-02	I	2.0E-01	H	V			1		3.8E+02	Dichlorobenzene, 1,2-	95-50-1	1.8E+02	n	9.3E+02	nl	2.1E+01	n	8.8E+01	n	3.6E+01	n	6.0E+02	3.5E-02	n	5.8E-01	
5.4E-03	C	1.1E-05	C	7.0E-02	A	8.6E-01	I	V			1			Dichlorobenzene, 1,4-	106-46-7	2.6E+02	n	1.1E+01	c	2.6E-01	c	1.1E+00	c	4.8E-01	c	7.5E+01	4.8E-04	c	7.2E-02	
4.5E-01	I	3.4E-04	C								1	0.1		Dichlorobenzidine, 3,3'-	91-94-1	1.1E+00	c	4.6E+00	c	8.1E-03	c	3.5E-02	c	1.2E-01	c		8.1E-04	c		
				9.0E-03	X						1	0.1		Dichlorobenzophenone, 4,4'-	90-98-2	5.7E+01	n	2.4E+02	n					7.8E+00	n		4.1E-02	n		
				2.0E-01	I	1.0E-01	X	V			1		8.5E+02	Dichlorodiphenylethane, 1,1-(2,2-dichloroethylidene)	75-71-8	8.7E+03	n	3.7E+01	n	1.0E+01	n	4.4E+01	n	2.0E+01	n		3.0E-03	n		
5.7E-03	C	1.6E-06	C	2.0E-01	P			V			1		7.7E+02	Dichlorodiphenyldichloroethane, 1,1-(DDD)	72-54-8	2.4E+01	c	1.0E+02	c	2.4E+00	c	1.0E+01	c	3.6E+00	c		7.8E-01	c		
9.1E-02	I	2.6E-06	I	8.0E-03	X	7.0E-03	P	V			1		3.0E+02	Dichlorodiphenyldichloroethylene, 1,1-(DDE)	72-55-9	1.4E+01	c**	2.0E+00	c**	1.1E+01	c**	4.7E+01	c**	1.7E+01	c**	5.0E+00	4.0E-04	c**	1.4E-03	
				5.0E-02	I	2.0E-01	I	V			1		1.2E+03	Dichlorodiphenyltrichloroethane, 1,1,1-(DDT)	50-29-3	2.3E+01	n	1.0E+02	n	2.1E+01	n	8.8E+01	n	2.0E+01	n	7.0E+00	1.9E-03	n	2.1E-02	
				2.0E-03	I			V			1		2.4E+01	Dichloroethane, 1,1-	75-34-3	1.8E+01	n	2.3E+02	n					3.6E+01	n	1.6E+02	1.1E-03	n	2.1E-03	
				2.0E-02	I			V			1		1.9E+01	Dichloroethane, 1,2- (Ethylene Dichloride)	107-06-2	1.1E+01	n	2.5E+02	n					4.8E+00	n	5.0E+00	1.1E-03	n	3.1E-03	
				3.0E-01	I						1	0.1		Dichloroethylene, 1,1-	75-35-4	2.5E+02	n	1.0E+03	n					3.6E+01	n	1.6E+02	5.4E-03	n		
				1.0E-02	I						1	0.1		Dichloroethylene, 1,2-cis-	156-59-2	1.6E+01	n	2.3E+02	nl					3.6E+01	n	1.6E+02	1.1E-03	n	3.1E-03	
				2.0E-03	I			V			1		1.9E+01	Dichloroethylene, 1,2-trans-	156-60-5	1.6E+01	n	2.3E+02	n					3.6E+01	n	1.6E+02	1.1E-03	n	3.1E-03	
				3.0E-01	I						1	0.1		Dichlorophenol, 2,4-	120-83-2	1.9E+01	n	2.5E+02	n					4.8E+00	n		5.4E-03	n		
				1.0E-02	I						1	0.1		Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	1.9E+02	n	9.8E+02	n					7.3E+01	n	7.0E+01	1.1E-02	n	9.8E-02	
				8.0E-03	I						1	0.1		Dichlorophenoxybutyric Acid, 4-(2,4-)	94-82-6	5.1E+01	n	9.8E+02	n					1.2E+01	n		1.1E-02	n		
3.8E-02	C	1.0E-06	C	8.0E-02	A	4.0E-03	I	V			1		1.4E+02	Dichlorophenoxypropionic Acid, 2-(2,4-)	78-87-5	1.0E+03	c**	4.4E+00	c**	2.8E-01	c**	1.2E+00	c**	4.4E-01	c**	6.0E+00	1.1E-04	c**	1.7E-03	
				2.0E-03	P			V			1		7.8E+01	Dichloropropane, 1,2-	78-87-5	1.1E+02	n	5.2E+02	nl					5.2E+01	n		1.2E-03	n		
				3.0E-03	I						1	0.1		Dichloropropanol, 2,3-	616-23-9	1.9E+01	n	2.5E+02	n					5.8E+00	n		1.2E-03	n		
1.0E-01	I	4.0E-06	*	3.0E-02	I	2.0E-02	I	V			1		1.6E+02	Dichloropropene, 1,3-	542-75-6	1.8E+00	c**	8.2E+00	c**	7.0E-01	c**	3.1E+00	c**	4.7E-01	n**		1.7E-04	c**		
2.9E-01	I	8.8E-06	C	8.0E-04	I	5.0E-04					1	0.1		Dichlorvos	62-73-7	1.9E-01	c**	7.8E-01	c**	3.4E-02	c**	1.5E-01	c**	2.6E-01	c**		9.1E-05	c**		
				8.0E-02	P	3.0E-04	X	V			1			Dicyclopentadiene	77-73-6	1.3E-01	n	5.4E-01	n	3.1E-02	n	1.3E-01	n	6.3E-02	n		3.2E-04	n		
1.6E+01	J	4.8E-03		5.0E-05	I						1	0.1		Dieldrin	60-57-1	3.4E-02	c**	1.4E-01	c*	8.1E-04	c	2.7E-03	c	1.7E-03	c*		6.6E-06	c*		
		2.0E-04	C			5.0E-03	I				1	0.1		Diesel Engine Exhaust	NA					8.4E-03	c*	4.1E-02	c*							
				2.0E-03	P	2.0E-04	P				1	0.1		Diethanolamine	111-42-2	1.3E+01	n	1.0E+02	n	2.1E-02	n	8.8E-02	n	4.0E+00	n		9.1E-04	n		
				3.0E-02	P	1.0E-04	P				1	0.1		Diethylene Glycol Monobutyl Ether	112-34-5	1.0E+02	n	2.4E+03	n	1.0E-02	n	4.4E-02	n	8.0E+01	n		1.3E-02	n		
				6.0E-01	P	1.0E-04	P				1	0.1		Diethylene Glycol Monoethyl Ether	111-90-0	2.0E+02	n	4.1E+03	n	3.1E-02	n	1.3E-01	n	1.2E+02	n		3.4E-02	n		
				1.0E-03	P			V			1		1.1E+00	Diethylhexanoic Acid, 2-(2-ethylhexanoic acid)	617-94-7	7.8E+00	n	1.2E+02	n					2.0E+00	n		4.1E-04	n		
3.5E-02	C	1.0E-01	C								1	0.1		Diethylstilbestrol	56-53-1	1.4E-03	c	6.0E-03	c	2.8E-05	c	1.2E-04	c	4.8E-05	c		2.7E-06	c		
				8.0E-04	I						1	0.1		Difenoconazol	43222-48-6	5.1E+02	n	8.6E+03	n					1.8E+02	n			n		
				2.0E-02	I						1	0.1		Difluorobenzene, 1,2-	367-11-3	1.3E+02	n	1.6E+03	n					2.6E+01	n		2.3E-02	n		
						4.0E-01	I	V			1		1.4E+03	Difluoroethane, 1,1-	75-37-6	4.6E+03	ns	2.0E+04	ns	4.2E-03	n	1.8E-04	n	8.3E+03	n		2.6E-03	n		
4.4E-02	C	1.3E-01	C					V			1			Dihydroxybenzene, 1,3-	108-46-3	1.2E-01	c	5.1E-01	c	2.3E-01	c	9.9E-01	c	3.0E+01	c		3.7E-04	c		
						7.0E-01	P	V			1		2.3E+03	Diisopropyl Ether	108-20-3	2.7E+02	n	8.6E+02	n	7.3E-01	n	3.1E+02	n	1.5E+02	n		3.7E-02	n		
				8.0E-02	I			V			1		5.3E+02	Diisopropyl Methylphosphonate	1445-75-6	8.3E+02	ns	9.3E+03	ns					1.0E+02	n		4.8E-02	n		
				2.0E-02	I						1	0.1		Dimethipin	55290-64-7	1.3E+02	n	1.0E+03	n					4.0E+01	n		8.8E-03	n		
				2.0E-04	I						1	0.1		Dimethoate	60-51-5	1.3E+00	n	1.8E+01	n					4.0E-01	n		9.0E-05	n		
1.0E+00	P										1	0.1		Dimethoxybenzidine, 3,3'-	119-90-4	3.4E-01	c	1.4E+00	c					4.7E-02	c		5.7E-05	c		
1.7E-03	P			8.0E-02	P						1	0.1		Dimethyl methylphosphonate	756-79-6	3.3E+02	c**	1.4E+03	c**					4.6E+01	c**		8.8E-03	c**		
4.6E+00	C	1.3E-03	C								1	0.1		Dimethylamine azobenzene [p-]	60-11-7	1.2E-01	c	5.0E-01	c	2.2E-03	c	9.4E-03	c	4.0E-03	c		2.1E-03	c		
6.8E-01	H										1	0.1		Dimethylaniline HCl, 2,6-	21436-98-4	9.4E-01	c	4.0E+00	c					1.3E+01	c		1.8E-04	c		
2.9E-01	P			2.0E-03	X						1	0.1		Dimethylaniline, 2,4-	95-68-1	2.7E+00	c**	1.1E+01	c*					3.7E+01	c*		2.1E-04	c**		
				2.0E-03	I			V			1		8.3E+02	Dimethylaniline, N,N-	121-69-7	1.9E+01	n	2.5E+02	n					3.6E+00	n		1.3E-03	n		
1.1E+01	P										1	0.1		Dimethylbenzidine, 3,3'-	119-93-7	4.9E-02	c	2.1E-01	n					6.5E-03	n		4.3E-05	n		
				1.0E-01	P	3.0E-03	I	V			1		1.1E+03	Dimethylformamide	68-12-2	2.6E+02	n	1.5E+03	n	3.1E+00	n	1.3E+01	n	6.1E+00	n		1.1E-03	n		
				1.0E-04	X	2.0E-04	X	V			1		1.7E+03	Dimethylhydrazine, 1,1-	57-14-7	3.2E-02	n	1.4E-01	n	2.1E-04	n	8.8E-04	n	4.2E-04	n		8.3E-06	n		

Key: I = IRIS, P = PPRTV, A = ATSDR, C = CalEPA, X = APPENDIX PPRTV SCREEN (See FAQ #27), H = HEAST, J = New Jersey, O = EPA Office of Water, F = See FAQ, E = Environmental Criteria and Assessment Office, S = see user guide Section 5, L = see user guide on lead, M = mutagen, V = volatile, R = RBA applied (See User Guide for Arsenic notice), c = cancer, * = where n SL < 100X c SL, ** = where n SL < 10X c SL, n = noncancer, m = Concentration may exceed ceiling limit (See User Guide), s = Concentration may exceed Csat (See User Guide), SSL values are based on DAF = 1

Toxicity and Chemicalspecific Information																		Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	k, o, v	IUR (ug/m^3)$^{-1}$	k, o, v	RfD$_o$ (mg/kg-day)	o, v	RfC$_i$ (mg/m^3)	o, v, c	Weight-of-evidence	GIABS	ABS	C$_{sat}$ (mg/kg)	Analyte	CAS No.	Residential Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Residential Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Vapor Intrusion SSL (mg/kg)	key	MCL-based SSL (mg/kg)
1.5E+01							V		1		3.2E+02	Acetone Nitrile	75-05-8	5.2E+02	c	3.2E+01	c					2.9E+03	c		6.5E-03	s		
				1.0E-01	P				1		6.1	Benzyl Alcohol	100-51-6	9.2E+02	n	6.2E+01	n					2.6E+04	n		4.3E-02	s		
1.7E-01	I	4.9E-05	C	2.0E-03	P	1.0E-03	P V		1		1.0E+03	Benzyl Chloride	100-44-7	1.1E+00	c**	4.8E+00	c**	5.7E-02	c**	2.5E-01	c**	4.9E+02	c**		8.7E-05	c**		
		2.4E-03	I	2.0E-03	I	2.0E-05	I		0.007			Beryllium and compounds	7440-41-7	1.6E+01	n	2.3E+02	n	1.2E-03	c**	5.1E-03	c**	2.5E+00	n	4.0E+00	1.9E+00	n	3.2E+00	
				1.0E-04	I				0.1			Lutein	127-69-2	8.3E-01	n	6.2E+01	n					2.1E+01	n		4.7E-02	s		
				8.0E-03	P				1		0.1	Difenoxuron	42576-02-3	6.7E+01	n	7.4E+02	n					1.8E+01	n		7.9E-03	n		
				1.3E-02	I				1		0.1	Diphenamid	957-51-7	1.6E+02	n	1.2E+03	n					3.0E+01	n		1.4E+02	n		
8.0E-03	I			2.0E-01	I	4.0E-04	A V		1			Diphenyl (1,1'-	92-52-4	4.7E+00	n	2.4E+01	n	4.8E-02	n	1.8E-01	n	8.3E+02	n		5.7E-04	n		
7.0E-02	H	1.0E-06	H	4.0E-02	I		V		1		1.0E+03	Bis(2-chloro-1-methylethyl) ether	108-60-1	4.9E+00	c*	2.9E+01	c	2.8E-01	c	1.2E+00	c	3.6E+01	c		1.3E-04	c		
				3.0E-03	P				1		0.1	Bis(2-chloroethoxy)methane	111-91-1	1.9E+01	n	2.5E+02	n					6.9E+00	n		1.3E-03	n		
1.1E+00	I	3.3E-04	I				V		1		5.1E+03	Bis(2-chloroethyl)ether	111-44-4	2.3E-01	c	1.0E+00	c	8.5E-03	c	3.7E-02	c	1.4E+02	c		1.7E-03	c		
2.2E+02	I	6.7E-02	I				V		1		4.2E+03	Bis(chloromethyl)ether	542-88-1	8.3E-05	c	3.6E-04	c	4.5E-05	c	2.0E-04	c	7.2E-05	c		1.7E-08	c		
				8.0E-02	I				1		0.1	Bisphenol A	80-05-7	3.2E+02	n	4.1E+03	n					7.7E+01	n		8.8E+00	n		
				2.0E-01	I	2.0E-02	H		1			Boron And Borates Only	7440-42-8	1.6E+03	n	2.3E+04	n	2.1E+00	n	8.8E+00	n	4.0E+02	n		1.5E+00	n		
				2.0E+00	P	2.0E-02	P V		1			Boron Trichloride	10294-34-5	1.6E+04	n	2.3E+05	nm	2.1E+00	n	8.8E+00	n	4.2E+02	n			n		
				4.0E-02	C	1.3E-02	C V		1			Boron Trifluoride	7637-07-2	3.1E+02	n	4.7E+03	n	1.4E+00	n	5.7E+00	n	2.8E+02	n			n		
7.8E-01	I			4.0E-03	I				1		2.4E+03	Bromate	15541-45-4	8.1E-01	c*	4.7E+00	-					1.1E+01	c*	10	1.0E+01	c*	1.7E+02	
2.0E+00	X	9.8E-04	X				V		1		6.8E+02	Bromo-2-chloroethane, 1-	107-04-0	2.8E-02	c	1.1E-01	c	4.7E-03	c	2.0E-02	c	7.4E-03	c		2.1E-05	c		
				6.0E-02	I	6.0E-02	I V		1		6.8E+02	Bromobenzene	108-86-1	2.9E+01	n	1.6E+02	n	6.3E+00	n	2.6E+01	n	9.2E+00	n		4.2E-03	n		
						4.0E-02	A V		1		4.0E+03	Bromochloromethane	74-97-5	1.5E+01	n	8.3E+01	n	4.2E+00	n	1.8E+01	n	8.3E+00	n		2.1E-03	n		
6.2E-02	I	3.7E-05	C	2.0E-02	I		V		1		8.3E+02	Bromodichloromethane	75-27-4	2.9E-01	c	1.3E+00	c	7.8E-02	c	3.3E-01	c	1.3E+01	c	80E+01(F)	3.6E-04	c	2.2E-02	
7.9E-03	I	1.1E-06	I	2.0E-02	I		V		1		9.2E+02	Bromoform	75-25-2	1.9E+01	c*	8.8E+01	c*	2.6E+00	c	1.1E+01	c	3.8E+00	c*	8.0E+01(F)	4.1E-04	c*	2.7E-02	
				1.4E-03	I	5.0E-03	I V		1		3.0E+01	Bromomethane	74-83-9	5.2E-01	n	3.0E+00	n	3.2E-01	n	2.2E+00	n	7.8E-01	n		1.9E-04	n		
				8.6E-05	H		V		1			Bromophos	2104-96-3	2.9E+01	n	5.8E+02	n					3.5E+00	n		1.9E-03	n		
				2.0E-02	I				1		0.1	Bromoxynil	1689-84-5	1.3E+02	n	1.6E+03	n					3.3E+01	n		2.8E-02	n		
				2.0E-02	I				1			Bromoxynil Octanoate	1689-99-2	1.3E+02	n	2.3E+03	n					1.4E+01	n		1.2E-01	n		
3.4E+00	C	3.0E-05	I			2.0E-01	I V		1		6.7E+02	Butadiene, 1,3-	106-99-0	5.8E-02	c**	2.6E-01	c**	9.4E-02	c**	4.1E-01	c**	1.6E-02	c*		9.6E-06	c*		
				1.0E-01	I		V		1		7.6E+03	Butanol, n-	71-36-3	7.8E+02	n	1.2E+04	ns					2.0E+02	n		4.1E-02	n		
1.9E-03	P			2.0E-01	I				0.1			Butyl benzyl phthalate	85-68-7	2.6E+03	c**	1.2E+04	c**					1.9E+01	c*		2.3E-01	c*		
				2.0E+00	P	3.0E+01	P V		1		2.1E+04	Butylate	2008-41-5	1.3E+04	n	1.5E+05	nns	3.1E+03	n	1.3E+04	n	2.4E+03	n		6.0E-01	ns		
				5.0E-02	I		V		1			Butylbenzene, sec-	135-98-8	3.8E+02	n	5.8E+03	n					4.8E+01	n		4.9E-02	s		
2.0E-04	C	6.7E-06	C						1		0.1	Butylate hydroxyanisole	25013-16-5	2.7E+01	c	1.1E+02	c	4.9E+01	c	2.2E+02	c	2.4E+02	c		6.3E-01	c		
3.0E-03	P			3.0E-01	P				1		0.1	Butylated hydroxytoluene	128-37-0	1.5E+02	c*	8.4E+02	c*					3.2E+00	c*		9.7E-02	c*		
				5.0E-02	P		V		1		1.1E+02	Butylbenzene, n-	104-51-8	3.9E+02	ns	5.8E+03	ns					1.6E+02	n		3.2E-01	n		
				1.0E-01	X		V		1		1.1E+02	Butylbenzene, tert-	135-98-8	7.8E+02	ns	1.2E+04	ns					2.0E+02	n		5.9E-01	n		
				1.0E-01	X		V		1		1.1E+02	Butylbenzene, sec-	98-06-6	7.8E+02	ns	1.2E+04	ns					2.0E+02	n		1.0E-01	n		
				2.0E-02	A				1		0.1	Butylcalyle, Acid	75-65-0	1.3E+02	n	1.6E+03	n					4.0E+01	n			n		
		1.6E-03	I	1.0E-03	I	1.0E-01	A		0.025	0.001		Cadmium (Diet)	7440-43-9	7.1E+01	n	9.8E+01	n											
		1.8E-03	I	5.0E-04	I	1.0E-05	A		0.05	0.001		Cadmium (water)	7440-43-9					1.0E-03	s	4.4E-03	s	9.2E-01	n	5.0E+00	6.8E-02	n	1.9E-01	
6.1E-01	C	1.8E-01	C	2.0E-02	C	2.0E-04	C	M	0.025			Calcium Chromate	13765-19-0	1.8E-01	c	8.2E+00	c	8.6E-06	c	3.7E-05	c	4.1E-02	c					
				5.0E-01	I	2.5E-03	C		1		0.1	Calcium oxide	1305-78-8	3.1E+03	n	4.8E+04	n	2.3E-01	s	9.8E-01	s	9.8E+02	n		2.1E-01	n		
1.8E-01	C	4.3E-05	C	2.0E-03	I				1		0.1	Captafol	2425-06-1	3.9E+00	c**	1.6E+01	c*	9.5E-02	c	3.9E-01	c	4.0E-01	c**		7.1E-04	c**		
2.3E-03	C	6.8E-07	C	1.3E-01	I				1		0.1	Captan	133-06-2	2.4E+02	c**	1.0E+03	c*	4.3E+00	c	1.8E+01	c	3.1E+01	c**		2.2E-02	c**		
				1.4E-01	I				0.1			Carbaryl	63-25-2	1.3E+02	n	8.2E+03	n					1.8E+02	n		3.7E-01	n		
				5.0E-03	I				1		0.1	Carbofuran	1563-66-2	3.2E+01	n	4.1E+02	n					8.4E+00	n	4.0E+01	3.7E-03	n	1.4E-02	
				1.0E-01	I	7.0E-01	I V		1		7.4E+02	Carbon bisulfide	75-15-0	3.5E+02	n	3.5E+03	n	7.3E+01	n	3.1E+02	n	6.1E+01	n		2.4E-02	n		
7.0E-02	I	6.0E-06	I	4.0E-03	I	1.0E-01	I V		1		4.9E+02	Carbon Tetrachloride	56-23-5	4.5E-01	c*	2.0E+00	c*	4.7E-01	c*	2.0E+00	c*	4.5E-01	c*	5.0E+00	1.2E-04	c*	1.9E-03	
				1.0E-02	I				1		0.1	Carbosulfan	55285-14-8	6.3E+01	n	8.2E+02	n					5.1E+00	n		1.2E-01	s		
				1.0E-01	I				1		0.1	Carbonyl	8234-98-4	6.3E+02	n	8.2E+03	n					1.9E+02	n		1.4E-01	s		
						9.0E-04	I		1			Ceric oxide	1306-38-3	1.3E+05	nm	5.4E+05	nm	8.4E-02	s	3.5E-01	s							
				1.0E-01	I		V		1			Chloral Hydrate	302-17-0	7.8E+02	n	1.2E+04	n					7.0E+02	n		4.8E-02	n		
				1.9E-02	I				1		0.1	Chloramben	133-90-4	9.5E+01	n	1.2E+03	n					2.9E+01	n		7.9E-03	n		
4.6E-01	H								0.1			Chlorate	116-15-4	1.3E+02	c	1.7E+03	c					1.8E+01	n		1.2E-04	c		
3.1E-01	I	1.0E-04	I	5.0E-04	I	7.0E-04	I V		1		6.0E+01	Chlordane	12789-03-6	1.7E+00	c**	7.5E+00	c**	2.8E-02	c**	1.2E-01	c**	4.5E-02	c**	2.0E+00	3.9E-03	c**	1.4E-01	
1.6E+01	I	4.8E-03	C	3.0E-04	I				1		0.1	Chlordecone (Kepone)	143-50-0	5.4E-02	c	2.3E-01	c	6.1E-04	c	2.7E-03	c	3.5E-03	c*		1.2E-04	c*		
				7.0E-04	A				1		0.1	Chlorfenapyr	470-90-6	4.4E+00	n	5.7E+01	n					1.1E+00	n		3.7E-03	n		
				2.0E-02	I				1		0.1	Chlormequat, Ethyl-	50982-32-4	1.3E+02	n	1.6E+03	n					3.9E+01	n		1.3E-02	n		
				1.0E-01	I	1.5E-04	A V		1		2.6E+03	Chlorine	7782-50-5	1.8E-02	n	7.8E-02	n	1.5E-02	n	6.4E-02	n	3.0E-02	n		1.4E-05	n		
				3.0E-02	I	2.0E-04	I V		1			Chlorine Dioxide	10049-04-4	2.3E+02	n	3.4E+03	n	2.1E+00	n	8.8E+00	n	4.2E+02	n			n		
				3.0E-02	I				1			Chlorite (Sodium Salt)	7758-19-2	2.3E+02	n	3.5E+03	n					8.0E+01	n	1.0E+03		n		
		3.0E-04	I	2.5E-02	H	2.0E-02	I V		1		1.2E+03	Chloro-1,1-difluoroethane, 1-	75-68-3	5.4E+03	ns	2.3E+04	ns	1.2E+03	n	2.2E+04	n	1.0E+04	n		6.3E+00	n		
									1		9.4E+02	Chloro-1,3-butadiene, 2-	126-99-8	1.1E-02	c	4.4E-02	c	9.4E-03	c	4.1E-02	c	1.6E-...	c		9.6E-06	c*		
4.6E-01	H								1		0.1	Chloro-2-methylaniline HCl, 4-	3165-93-3	1.2E+00	c	5.0E+00	c					1.7E-01	c		1.9E-04	c*		
1.3E-01	P	7.7E-05	C	3.0E-03	X				1		0.1	Chloro-3-methylaniline, 4-	59-98-2	5.4E+00	c**	2.3E+01	c*	3.8E-02	c	1.6E-01	c	8.9E-01	c**		3.6E-04	c**		
2.7E-01	A						V		1		2.8E+04	Chloroacetaldehyde, 2-	107-20-0	2.8E+00	c	1.2E+01	c					2.9E-01	c		5.9E-05	c		

Key: I = IRIS, P = PPRTV; A = ATSDR; C = Cal EPA, X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST, J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office. S = see user guide Section 5, L = see user guide on lead; M = mutagen; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; * = where: a SL < 100X c SL, ** = where n SL < 10X c SL, n = noncancer; m = Concentration may exceed ceiling limit (See User Guide). s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information																		Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day)$^{-1}$	o y	IUR (ug/m^3)$^{-1}$	o y	RfD$_o$ (mg/kg-day)	o y	RfC$_i$ (mg/m^3)	o y c	mutagen	GIABS	ABS	C$_{sat}$ (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	key	SSL (mg/kg)	key	SSL (mg/kg)
3.5E-02	C	1.6E-01	C				V		1		1.6E+05	Dimethylbenzenes * 2	1330-20-7	8.8E+04	c	4.1E+01	c	1.8E+01	c	9.4E+01	c	2.1E+01	c			6.5E+00	c		
				2.0E-02	I				1	0.1		Dimethylphenol, 2,4-	105-67-9	1.3E+03	n	1.0E+03	n					3.6E+01	n			9.3E+02	c		
				6.0E-04	I				1	0.1		Dimethylphenol, 2,6-	576-26-1	3.8E+00	n	4.8E+01	n					1.2E+00	n			1.2E+00	n		
				1.0E-03	I				1	0.1		Dimethylphenol, 3,4-	95-65-8	8.3E+00	n	8.3E+01	n					1.0E+00	n			2.1E+03	n		
4.0E-02	C	1.3E-05	C				V		1		1.1E+03	Dimethylaniline[e]	121-69-7	2.1E+01	c	9.4E+01	c	2.2E-01	c	9.4E-01	c	3.6E+01	c			2.1E+00	c		
				8.0E-06	X				1	0.1		Dinitro-o-cresol, 4,6-	534-52-1	5.1E-01	n	6.0E+00	n					1.5E-01	n			2.0E-04	n		
				2.0E-03	I				1	0.1		Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	1.3E+01	n	1.6E+02	n					2.3E+00	n			7.1E-02	n		
				1.0E-04	P				1	0.1		Dinitrobenzene, 1,2-	528-29-0	6.3E-01	n	8.2E+00	n					1.1E-01	n			4.2E-03	n		
				1.0E-04	I				1	0.1		Dinitrobenzene, 1,3-	99-65-0	6.3E-01	n	8.2E+00	n					2.0E-01	n			1.6E-04	n		
				1.0E-04	P				1	0.1		Dinitrobenzene, 1,4-	100-25-4	6.3E-01	n	8.2E+00	n					2.0E-01	n			1.6E-04	n		
				2.0E-03	I				1	0.1		Dinitrophenol, 2,4-	51-28-5	1.3E+01	n	1.6E+02	n					3.8E+00	n			1.4E-03	n		
6.8E-01	I								1	0.1		Dinitrotoluene Mixture, 2,4/2,6-	NA	8.8E-01	c	3.4E+00	c					1.1E-01	c			1.5E-04	c		
3.1E-01	C	8.8E-05	C	2.0E-03	I				1	0.102		Dinitrotoluene, 2,4-	121-14-2	1.7E+00	c**	7.4E+00	c*	3.2E-02	c	1.4E-01	c	2.4E-01	c*			3.5E-04	c*		
1.5E+00	P			3.0E-04	X				1	0.099		Dinitrotoluene, 2,6-	606-20-2	3.5E-01	c**	1.5E+00	c*					4.8E-02	c*			8.7E-05	c*		
				2.0E-03	S				1	0.099		Dinitrotoluene, 3-Amino-4,6-	35572-78-2	1.9E+01	n	2.3E+02	n					3.8E+00	n			3.6E-03	n		
				2.0E-03	S				1	0.099		Dinitrotoluene, 4-Amino-2,6-	19406-51-0	1.9E+01	n	2.3E+02	n					3.8E+00	n			3.6E-03	n		
4.5E-01	X			8.0E-04	X				1	0.1		Dinitrotoluene, Technical grade	25321-14-6	1.2E+00	c**	5.1E+00	c*					1.6E-01	c*			2.9E-04	c*		
				1.0E-03	I				1	0.1		Dinoseb	88-85-7	8.3E+00	n	9.2E+01	n					1.5E+00	n	7.0E+00		1.8E-02	n	0.22E-02
1.9E-01	I	5.0E-09	I	3.0E-02	I	3.0E-02	I V		1		1.2E+05	Dioxane, 1,4-	123-91-1	5.3E+00	c*	2.4E+01	c*	5.0E-01	c**	2.5E+00	c**	4.6E-01	c*			9.4E-05	c*		
												Dioxane																		
6.2E+03	I	1.3E+00	I						1	0.03		1-Hexachlorodibenzo-p-dioxin, Mixture	NA	1.8E-04	c	4.7E-04	c	2.2E-08	c	9.4E-08	c	1.3E-05	c			1.7E-05	c		
1.3E+05	C	3.8E+01	C	7.0E-10	I	4.0E-08	C V		1	0.03		2,3,7,8-TCDD	1746-01-6	4.8E-06	c**	2.0E-05	c**	7.4E-09	c*	3.2E-07	c*	1.2E-07	c*	3.0E-05		5.0E-08	c*	1.6E-08
				3.0E-02	I				1	0.1		Diphenamid	957-51-7	1.9E+02	n	2.5E+03	n					5.3E+01	n			2.3E-01	n		
				8.0E-04	X				1	0.1		Diphenyl Sulfone	127-63-9	5.1E+00	n	6.6E+01	n					1.5E+00	n			3.0E-03	n		
				2.0E-02	I				1	0.1		Diphenylamine	122-39-4	1.0E+02	n	2.1E+03	n					3.1E+01	n			6.8E-02	n		
8.0E-01	I	2.2E-04	I						1	0.1		Diphenylhydrazine, 1,2-	122-66-7	5.6E-01	c	2.4E+00	c	1.3E-02	c	5.6E-02	c	7.7E-02	c			2.2E-04	c		
				2.2E-03	I				1	0.1		Diquat	85-00-7	1.4E+01	n	1.6E+02	n					4.4E+00	n	2.0E+01		6.3E-03	n	3.1E-01
7.1E+00	C	1.4E-01	C						1	0.1		Direct Black 38	1937-37-7	7.6E-02	c	3.2E-01	c	2.9E-05	c	8.8E-05	c	1.1E-02	c			5.3E+00	c		
7.4E+00	C	1.4E-01	C						1	0.1		Direct Blue 6	2602-46-2	7.3E-02	c	3.1E-01	c	2.8E-05	c	8.6E-05	c	1.1E-02	c			1.7E-01	c		
6.7E+00	C	1.4E-01	C						1	0.1		Direct Brown 95	16071-86-6	8.1E-02	c	3.4E-01	c	2.9E-05	c	8.8E-05	c	1.2E-02	c			1.8E-01	c		
				4.0E-05	I				1	0.1		Disulfoton	298-04-4	2.5E-01	n	3.3E+00	n					5.0E-02	n			9.4E-04	n		
				1.0E-02	I		V		1			Dioxane, 1,4-	123-91-1	7.8E+01	n	1.3E+02	n					2.0E+01	n			3.1E-02	c		
				2.0E-03	I				1	0.1		Diuron	330-54-1	1.3E+01	n	1.6E+02	n					3.6E+00	n			1.1E-03	n		
				4.0E-03	I				1	0.1		Dodine	2439-10-3	2.5E+01	n	3.3E+02	n					8.0E+00	n			4.1E-03	n		
				2.1E-02	I		V		1			EPTC	759-94-4	2.3E+02	n	2.9E+03	n					7.4E+01	n			2.0E-02	n		
				6.0E-03	I		V		1			Ethephon	16672-87-0	4.7E+01	n	7.0E+02	n					1.0E+01	n			1.4E-01	n		
				2.0E-02	I				1	0.1		Ethion	563-12-2	1.3E+02	n	1.6E+03	n					3.6E+01	n	1.0E+02		9.1E-03	n	3.4E-02
				3.0E-04	I				1	0.1		Ethoprop	13194-48-4	1.9E+00	n	2.5E+01	n					7.4E-01	n	2.0E+00		6.1E-04	n	6.1E-03
8.6E-03	I	1.2E-06	I	6.0E-03	P	1.0E-03	I V		1		1.1E+04	Ethoxyethanol, 2-	110-80-5	1.9E+00	n	8.2E+00	n	1.0E-01	n	4.4E-01	n	2.0E-01	n			4.6E-05	n		
						3.0E-02	I V		1		1.0E+04	Ethoxyethanol Acetate, 2-	111-15-9	1.0E+01	n	4.7E+01	n	2.1E+00	n	9.8E+00	n	4.2E+00	n			8.3E-04	n		
				5.0E-03	I				1	0.1		Ethoxyethanol, 2-	111-90-0	3.2E+00	n	4.1E+01	n					1.2E+01	n			2.5E-03	n		
				1.0E-01	P	8.0E-02	P V		1		3.1E+04	Ethoxyethyl Acetate, 2-	111-15-9	8.3E+02	n	1.4E+03	n	6.3E+00	n	2.8E+01	n	1.2E+01	n			2.5E-03	n		
				9.0E-02	P	2.0E-01	I V		1		1.1E+05	Ethoxyethanol, 2-	110-80-5	5.1E+02	n	4.7E+03	n	2.1E+01	n	9.8E+01	n	3.4E+01	n			4.6E-01	n		
				9.0E-01	I	7.0E-02	P V		1		1.1E+04	Ethyl Acetate	141-78-6	6.3E+01	n	2.6E+02	n	7.3E+00	n	3.1E+01	n	1.4E+01	n			3.1E-03	n		
4.8E-02	H			5.0E-03	P	8.0E-01	P V		1		7.1E+03	Ethyl Acrylate	140-88-5	4.7E+01	n	2.1E+01	n	9.3E-01	n	3.5E+00	n	1.4E+00	n			3.3E-04	n		
						1.0E-01	I V		1		2.1E+03	Ethyl Chloride (Chloroethane)	75-00-3	1.4E+03	n	5.7E+03	ns	1.0E+01	n	4.4E+01	n	2.1E+03	n			5.5E-02	n		
				2.0E-01	I		V		1		1.6E+04	Ethyl Ether	60-29-7	1.6E+03	n	2.3E+04	ns					3.8E+02	n			9.6E-02	n		
				8.0E-02	H	3.0E-01	P V		1		1.1E+03	Ethyl Methacrylate	97-63-2	1.4E+02	n	7.1E+02	n	3.1E+01	n	1.3E+02	n	4.6E+01	n			1.1E-02	n		
				1.5E-05	I				1	0.1		Ethyl-p-nitrophenyl Thiophosphate	2104-64-5	6.3E-01	n	8.1E+01	n					8.1E-01	n			2.6E-04	n		
1.1E-02	C	2.5E-06	C	1.0E-01	I	1.0E+00	I V		1		4.0E+02	Ethylbenzene	100-41-4	5.8E+00	c*	2.5E+01	c*	1.1E+00	c*	4.9E+00	c**	1.3E+00	c*	7.0E+02		1.7E-03	c*	0.95E-01
				7.0E-02	P				1	0.1		Ethylene Cyanohydrin	109-78-4	4.4E+02	n	5.7E+03	n					1.4E+02	n			2.6E-02	n		
				8.0E-02	P		V		1		1.6E+03	Ethylene Dibromide	106-93-4	1.3E+02	n	1.1E+04	n					1.8E+01	n			4.5E-03	n		
				2.0E+00	I	4.0E-01	C		1	0.1		Ethylene Glycol	107-21-1	1.3E+04	n	1.6E+05	nm	4.2E+01	n	1.8E+02	n	4.9E+03	n			3.1E-01	n		
				1.0E-01	I	1.0E+00	I		1	0.1		Ethylene Glycol Monobutyl Ether	111-76-2	8.3E+02	n	8.2E+03	n	1.7E+02	n	7.1E+02	n	2.0E+02	n			4.1E-02	n		
2.1E-01	C	6.0E-06	C			3.0E-02	C V		1		1.2E+05	Ethylene Oxide	75-21-8	1.0E-01	c	7.8E-01	c	3.3E-02	c*	1.4E-01	c*	5.1E-02	c			1.6E-05	c		
4.6E-02	C	1.3E-06	C	8.0E-05	I				1	0.1		Ethylene Thiourea	96-45-7	5.1E-01	n	6.6E+00	n	2.3E-01	c	9.4E-01	c	1.6E-01	n			3.0E-05	n		
8.5E+01	C	1.9E-02	C				V		1		1.2E+05	Ethylenimine	151-56-4	2.7E-03	c	1.2E-02	c	1.6E-04	c	6.5E-04	c	2.4E-04	c			5.2E-06	c		
				3.0E+00	I				1	0.1		Ethylphthalyl Ethyl Glycolate	84-72-0	1.9E+04	n	2.5E+05	nm					5.3E+03	n			1.2E+01	n		
				8.0E-02	I				1	0.1		Express	161208-46-0	5.1E+01	n	6.6E+02	n					1.5E+01	n			8.1E-03	n		
				2.0E-04	I				1	0.1		Fenamiphos	22224-92-6	1.6E+00	n	2.1E+01	n					4.4E-01	n			4.8E-04	n		
				2.5E-02	I				1	0.1		Fenpropathrin	39515-41-8	1.6E+02	n	2.1E+03	n					6.4E+00	n			7.6E-01	n		
				1.3E-02	I				1	0.1		Fluazifop	2164-17-2	8.2E+01	n	1.1E+03	n					2.4E+01	n			1.6E-03	n		
				4.0E-02	C	1.3E-02	C		1			Flumioxazin	103361-09-7	3.1E+02	n	4.7E+03	n	1.4E+00	n	5.7E+00	n	8.0E+01	n			1.2E+01	n		
				6.0E-01	I	1.5E-01	I		1			Fluoride (soluble fluoride)	7782-41-4	4.7E+02	n	7.0E+03	n	1.4E+00	n	5.7E+00	n	1.2E+02	n	4.0E+03		1.6E+01	n	6.0E-02

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Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs			
																										Generic		Chemical-specific	
SFO (mg/kg-day)$^{-1}$	k a y	IUR (ug/m^3)$^{-1}$	c a y	RfD$_o$ (mg/kg-day)	k a y	RfC$_i$ (mg/m^3)	v a o	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	SSL (mg/kg)	key	SSL (mg/kg)
				8.0E-02	I				1	0.1		Fenuron	101-42-8	1.6E+02	n	6.8E+03	n					1.4E+02	n		1.6E+01	n		
				2.0E-02	I				1	0.1		Fluometuron	2164-17-2	4.5E+01	n	1.9E+03	n					3.9E+01	n		4.4E+00	n		
				8.0E-02	I				1	0.1		Fluridone	59756-60-4	1.6E+02	n	6.8E+03	n					1.4E+02	n		1.6E+01	n		
				1.0E-02	I				1	0.1		Flurprimidol	56425-91-3	2.3E+01	n	9.6E+02	n					2.0E+01	n		2.3E+00	n		
				8.0E-02	I				1	0.1		Flusilazole	85509-19-9	1.6E+02	n	6.8E+03	n					1.4E+02	n		1.6E+01	n		
3.6E-03	I			1.0E-01	I				1	0.1		Flutolanil	66332-96-5	3.1E+02	n	1.3E+04	n					2.7E+02	n		3.1E+01	n		
												Fluvalinate	69409-94-5	6.3E+01	n	2.6E+02	n					2.8E+01	n		2.9E+00	n		
				1.0E-01	I				1	0.1		Folpet	133-07-3	1.6E+02	c**	6.8E+02	c**					2.8E+03	c**		4.7E+00	c**		
1.8E-01	I								1	0.1		Fomesafen	72178-02-0	2.5E+00	c	1.0E+01	c					2.1E+01	c		1.3E-03	c		
				2.0E-03	I				1	0.1		Fonofos	944-22-9	1.3E+01	n	1.6E+02	n					2.4E+00	n		4.7E+00	n		
		1.3E-05	I	2.0E-01	I	8.8E-03	A	V	1		4.2E+04	Formaldehyde	50-00-0	1.7E+01	c**	7.3E+01	c**	2.2E-01	c**	9.4E-01	c**	4.3E+01	c**		8.7E+00	c**		
				8.0E-01	P	2.9E-04	X	V	1		1.1E+06	Formic Acid	64-18-6	2.9E+02	n	1.2E+03	n	3.1E-02	n	1.3E-01	n	6.3E+02	n		1.4E+02	n		
				3.0E+00	I				1	0.1		Fosetyl-AL	39148-24-8	1.9E+04	n	2.5E+05	nm					9.9E+03	n					
												Furans																	
				1.0E-03	X			V	1	0.03		Dibenzofurans	132-64-9	7.3E+00	n	1.0E+02	n					7.9E+01	n		1.1E+02	s		
				1.0E-03	I			V	1	0.03	8.2E+03	Furan	110-00-9	7.3E+00	n	1.0E+02	n					1.9E+00	n		7.3E-04	n		
				9.0E-01	I	2.0E+00	I	V	1	0.03	1.7E+05	Tetrahydrofuran	109-99-9	1.8E+03	n	9.0E+03	n	2.1E+02	n	8.8E+02	n	3.4E+02	n		7.1E+00	n		
3.6E-02	H								1	0.1		Furazolidone	67-45-8	1.4E-01	c	6.1E-01	c					2.5E-02	c		3.1E-04	c		
				3.0E-03	I	8.6E-02	H	V	1		1.8E+04	Fenfural	98-01-1	2.1E+01	n	2.6E+02	n	5.2E+00	n	2.2E+01	n	3.8E+00	n		6.1E-04	n		
1.5E+00	C	4.3E-04	C						1	0.1		Furium	531-82-8	3.0E-01	c	1.5E+00	c	6.5E-03	c	2.8E-02	c	5.0E-02	c		6.0E-05	c		
3.0E-02	I	8.8E-06	C						1	0.1		Furosemide	88295-56-0	1.8E+01	c	7.7E+01	c	3.3E-01	c	1.4E+00	c	1.1E+00	C		1.3E-03	c		
				4.0E-04	I				1	0.1		Glufosinate, Ammonium	77182-82-2	3.6E+00	n	3.3E+01	n					8.0E-01	n		1.9E-04	w		
						8.6E-05	C		1	0.1		Glutaraldehyde	111-30-8	1.1E+04	n	4.6E+04	n	8.3E-03	n	7.5E-02	n							
				4.8E-04	I	1.6E-03	H	V	1		1.1E+05	Glycol	765-34-4	2.5E+03	n	1.9E+01	n	1.0E-01	n	4.4E-01	n	1.1E-01	n		9.5E-05	n		
				1.0E-01	I				1	0.1		Glycerine	1071-63-6	8.2E+02	n	8.2E+03	n					2.0E+02	n	7.0E+02	6.6E+04	n	2.1E+09	
				3.0E-03	I				1	0.1		Guar	42874-03-3	1.8E+01	n	2.5E+02	n					3.2E+00	n		2.3E+01	n		
				1.0E-02	X			V	1			Guanidine	111-40-0	2.7E+01	n	1.2E+03	n					2.3E+01	n		4.7E-03	s		
				2.0E-02	P				1	0.1		Guanidine Chloride	50-01-1	1.3E+02	n	1.6E+03	n					4.0E+01	n			n		
				3.0E-03	A	1.8E-02	A		1	0.1		Guthion	86-50-0	1.8E+01	n	2.5E+02	n	1.0E+00	n	4.4E+00	n	5.8E+00	n		1.7E-02	n		
				3.0E-06	I				1	0.1		Halofenozide	112226-61-6	2.7E+01	n	1.2E+03	n					7.1E+03	n		8.6E+01	s		
				1.3E-02	I				1	0.1		Hexabutadiene	87-68-3	8.2E+01	n	1.1E+03	n					2.0E+01	n		7.8E+00	n		
4.6E+04	I	1.3E-03	I	5.7E-04	I			V	1			Heptachlor	76-44-8	1.3E-01	c*	6.3E+01	c	2.9E-03	c	9.4E-03	c	1.4E-03	c*	4.0E-01	1.1E+01	c*	2.3E+02	
9.1E+00	I	2.6E-03	I	1.3E-05	I			V	1			Heptachlor Epoxide	1024-57-3	7.1E-02	c**	3.3E+01	c**	1.1E-03	c	4.7E-03	c	1.4E-03	c**	2.0E-01	2.1E-01	c**	4.1E+02	
				2.0E-03	I			V	1			Hexabromocyclododecane	25637-99-4	1.6E+01	n	2.3E+02	n					4.0E+00	n		2.3E+02	s		
				2.0E-04	I				1	0.1		Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-1	68631-49-2	1.3E+00	n	1.6E+01	n					4.0E-01	n			n		
1.6E+00	I	4.6E-04	I	8.0E-04	I			V	1			Hexachlorobenzene	118-74-1	2.1E-01	c*	9.6E-01	c*	3.6E-03	c	1.6E-02	c	9.6E-03	c	1.0E+00	1.9E+00	c	3.9E+02	
7.9E-02	I	2.2E-03	I	1.6E-03	P			V	1		1.7E+01	Hexachlorobutadiene	87-68-3	1.7E+00	c**	5.3E+00	c*	1.3E-01	c	5.6E-01	c	1.4E-01	c**		2.6E-01	c**		
6.3E+00	I	1.8E-03	I	6.0E-03	A				1	0.1		Hexachlorocyclopentadiene, Alpha-	319-84-6	9.8E-02	c	3.8E-01	c	1.6E-03	c	6.8E-03	c	7.1E-03	c		4.1E-05	c		
1.6E+00	I	5.2E-04	I						1	0.1		Hexachlorocyclohexane, Beta-	319-85-7	3.7E-01	c	1.3E+00	c	5.3E-03	c	2.3E-02	c	2.5E-02	c		1.6E-04	c		
1.1E+00	C	3.1E-04	C	3.0E-04					1	0.04		Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	5.7E-01	c**	2.5E+00	c*	8.1E-03	c	4.0E-02	c	4.1E-02	c**	2.0E-01	2.4E-04	c**	1.2E-03	
1.6E+00	I	4.6E-04	I						1	0.1		Hexachlorocyclopentadiene, Technical	608-73-1	4.1E-01	n	1.8E+00	c	6.6E-03	c	2.4E-02	c	2.5E-02	c		1.4E-04	n		
				6.0E-03	I	2.0E-04	I	V	1		1.0E+01	Hexachloroethane	67-72-1	1.8E+00	n	7.8E+00	n	2.1E-02	n	8.8E-02	n	4.1E-02	n	5.0E-01	1.2E-04	n	1.4E-03	
4.0E-02	I	1.1E-06	C	7.0E-04	I	3.0E-02	I	V	1			Hexachloroethane	67-72-1	1.8E+00	c**	8.0E+00	c**	2.8E-01	c	1.1E+00	c*	2.3E-01	c**		2.8E-04	c**		
				3.0E-04	I				1	0.1		Hexachloropropene	70-80-4	1.8E+00	n	2.5E+01	n					6.0E-01	n		8.0E-03	n		
1.1E-01	I			1.4E-03	I				1	0.01		Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	1.1E+02	c**	2.4E+02	c*					7.8E-01	c*		2.7E-01	c*		
						1.0E-05	I	V	1		5.2E+03	Hexamethylene Diisocyanate, 1,6-	822-06-0	7.1E-01	n	1.3E+00	n	1.0E-03	n	4.4E-03	A	2.1E-03	n		2.1E-05	n		
				4.0E-04	P				1	0.1		Hexamethylenetetramine	100-97-0	2.5E+02	n	3.3E+01	n					8.0E-01	n		1.8E-04	n		
				8.0E-02	H	7.8E-01	I	V	1		1.4E+03	Hexane, N-	110-54-3	6.4E+01	n	2.5E+02	nm	7.3E+01	n	3.1E+02	n	3.2E+01	n		7.3E-01	n		
				2.0E+00	P				1	0.1		Hexanedioic Acid	124-04-9	1.3E+04	n	1.6E+05	nm					4.0E+03	n		9.9E-01	n		
				6.0E-03	I	3.0E-02	I	V	1		2.3E+03	Hexanone, 2-	591-78-6	2.0E+01	n	1.3E+02	n	3.1E+00	n	1.3E+01	n	3.0E+00	n		6.6E-04	n		
				3.3E-02	I				1	0.1		Hexazinone	51235-04-2	2.7E+02	n	2.7E+03	n					6.2E+01	n		3.0E-02	n		
3.0E+00	I	4.6E-03	I			3.0E-05	P	V	1			Hydrazine	302-01-2	2.3E-01	c	1.1E+00	c	5.7E-04	c*	2.5E-03	c*	1.1E-03	c**			c*		
3.0E+00	I	4.9E-03	I						1			Hydrazine Sulfate	10034-93-2	2.3E-01	c	1.1E+00	c	5.7E-04	c	2.5E-03	c	2.8E-02	c			c		
						2.6E-02	I	V	1			Hydrogen Chloride	7647-01-0	2.8E+00	nv	1.2E+01	nv	2.1E+01	n	8.8E+00	n	4.2E+02	n			n		
				4.0E-02	C	1.4E-02	C	V	1			Hydrogen Fluoride	7664-39-3	3.1E+02	n	4.7E+03	n	1.5E+00	n	6.1E+00	n	2.8E+00	n			n		
						2.6E-03	I	V	1			Hydrogen Sulfide	7783-06-4	2.8E+05	nm	1.2E+06	nm	2.1E-01	n	8.8E-01	n	4.2E-01	n			n		
8.6E-02	P			4.0E-02	P				1	0.1		Hydroquinone	123-31-9	8.0E+00	c*	3.5E+01	c*					1.3E+00	c*		8.7E-04	c*		
				1.3E-02	I				1	0.1		Imazalil	35554-44-0	8.2E+01	n	1.1E+03	n					1.8E+01	n		3.3E-01	n		
				2.0E-01	I				1	0.1		Imazapyr	81334-34-1	1.6E+03	n	2.1E+04	n					4.0E+02	n		2.4E+00	n		
				1.0E-02	A				1			Indene	95-13-6	2.7E+01	n	1.1E+03	n					2.2E+01	n		7.9E+00	s		
				4.0E-02	I				1	0.1		Indeno	36734-19-7	2.5E+02	n	3.3E+03	n					7.4E+01	n		2.2E+02	n		
				7.0E-01	P				1			Iron	7439-89-6	5.6E+03	n	8.2E+04	n					1.4E+03	n		3.5E+01	n		
				3.0E-01				V	1		1.0E+04	Isobutyl Alcohol	78-83-1	2.5E+03	n	3.3E+04	n					5.9E+02	n		1.2E+01	n		
9.8E-04	I			2.0E-01	I	2.0E+00	C		1	0.1		Isophorone	78-59-1	5.7E+02	c**	2.4E+03	c**	2.1E+02	n	9.8E+02	n	7.8E+01	c**		2.6E+02	c**		
				1.0E-02	I			V	1			Isopropalin	33820-53-0	1.3E+02	n	1.6E+03	n					4.0E+00	n		6.3E+02	n		
				2.0E+00	P	2.0E+01	P	V	1		1.1E+05	Isopropanol	67-63-0	5.6E+02	n	2.4E+03	n	2.1E+01	n	8.8E+01	n	4.1E+01	n		8.4E-05	s		
				1.0E-01	I				1	0.1		Isopropyl Methyl Phosphonic Acid	1832-54-8	8.2E+02	n	8.2E+03	n					2.0E+02	n		4.1E-02	n		
				6.0E-02	I				1	0.1		Isoxaben	82558-50-7	3.7E+02	n	4.1E+03	n					7.3E+01	n		2.3E-01	n		

Key: I = IRIS, P = PPRTV; A = ATSDR; C = Cal EPA, X = APPENDIX PPRTV SCREEN (See FAQ #27), H = HEAST, J = New Jersey; O = EPA Office of Water; F = See FAQ, E = Environmental Criteria and Assessment Office, S = see user guide Section 5, L = see user guide on lead; M = mutagen, V = volatile, R = RBA applied (See User Guide for Arsenic notice) , c = cancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL, n = noncancer; m = Contaminant may exceed ceiling limit (See User Guide); s = Contaminant may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information																		Contaminant		Screening Levels												Protection of Ground Water SSLs			
RfD (mg/kg-day)	o t e	IUR (ug/m³)⁻¹	o t e	RfD$_i$ (mg/kg-day)	o t e	RfC$_i$ (mg/m³)	o t e	o c	mutagen	GIABS	ABS	C$_{sat}$ (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m³)	key	Industrial Air (ug/m³)	key	Tapwater (ug/L)	key	MCL (ug/L)	SSL (mg/kg)	key	SSL (mg/kg)
						3.0E-01	A	V			1			JP-7	NA	4.3E+07	sm	1.9E+08	sm	3.1E+01	n	1.3E+03	n	8.3E+01	n				
				7.5E-02	I						1	0.1		Kerb	23950-58-5	4.7E+02	n	6.2E+03	n					1.3E+02	n		1.3E-01	n		
				2.0E-03	I						1	0.1		Lactofen	77501-63-4	1.3E+01	n	1.6E+02	n					3.5E+00	n		4.3E-01	n		
														Lead Compounds																
5.0E-01	C	1.2E-01	C	2.0E-02	C	2.0E-04	C		M	0.025				-Lead Chromate	7758-97-6	3.0E-01	c	6.2E+00	c	8.9E-06	c	8.2E-05	c	4.1E+02	c			c		
8.5E-03	C	1.2E-05	C							1				-Lead Phosphate	7446-27-7	8.2E+01	c	3.8E+02	c	2.3E-01	c	1.0E+00	c	9.1E+00	c			c		
2.1E-01	C	8.0E-05	L							1		0.1		-Lead acetate	301-04-2	1.8E+00	c	8.2E+00	c	3.5E-02	c	1.5E-01	c	2.8E+01	c			c		
										1				-Lead and Compounds	7439-92-1	4.0E+02		5.8E+02	L	1.2E-01	L			1.5E+01	L	1.5E+01			L	1.4E+01
8.5E-03	C	1.2E-05	C							1		0.1		-Lead subacetate	1335-32-6	8.4E+01	c	3.7E+02	c	2.3E-01	c	1.0E+00	c	8.2E+00	c			c		
				1.0E-07	I			V		1			2.4E+00	Tetraethyl Lead	78-00-2	7.8E-04	n							1.2E-04	n		4.7E-07	n		
				2.0E-03	I					1		0.1		Linuron	330-55-2	1.3E+01	n	1.6E+02	n					3.3E+00	n		8.8E-03	n		
				2.0E-03	P					1				Lithium	7439-93-2	1.6E+01	n	2.3E+02	n					4.0E+00	n		1.3E+00	n		
				2.0E-01	I					1		0.1		Lorsban	53866-99-6	1.2E+03	n	1.6E+04	n					3.5E+02	n		1.2E-01	n		
				5.0E-04	I					1		0.1		MCPA	94-74-6	3.2E+00	n	4.1E+01	n					7.5E-01	n		2.6E-04	n		
				1.0E-02	I					1		0.1		MCPB	94-81-5	8.3E+01	n	8.2E+02	n					1.5E+01	n		6.6E-03	n		
				1.0E-03	I					1		0.1		MCPP	93-65-2	8.3E+00	n	8.3E+01	n					1.4E+00	n		4.6E-04	n		
				2.0E-02	I					1		0.1		Malathion	121-75-5	1.3E+02	n	1.6E+03	n					3.3E+01	n		1.6E-02	n		
				1.0E-01	I	7.0E-04	C			1		0.1		Maleic Anhydride	108-31-6	6.3E+02	n	8.0E+03	n	7.3E-02	n	3.1E-01	n	1.8E+02	n		3.6E-02	n		
				5.0E-01	I					1		0.1		Maleic Hydrazide	123-33-1	4.2E+03	n	4.1E+04	n					7.5E+03	n		2.1E-01	n		
				1.0E-04	P					1		0.1		Malononitrile	109-77-3	8.3E-01	n	8.2E+00	n					2.0E-01	n		4.1E-05	n		
				3.0E-02	H					1		0.1		Mancozeb	8018-01-7	1.9E+02	n	2.5E+03	n					5.4E+01	n			n		
				5.0E-03	I					1		0.1		Maneb	12427-38-2	2.1E+01	n	4.1E+02	n					9.4E+00	n		1.8E-02	n		
														Manganese (Diet)	7439-96-5																
				1.4E-01	I	5.0E-05	I			1				Manganese (non-diet)	7439-96-5																
				2.4E-02	S	5.0E-05	I			0.04				Mancozeb	8018-01-7	1.8E+02	n	2.5E+03	n	5.2E-03	n	2.2E-02	n	4.3E+01	n		3.6E+00	n		
				8.0E-05	H					1		0.1		Mercuric (II) Chloride	7487-94-7	2.3E+00	n	3.1E+01	n	3.1E-02	n	1.3E-01	n	5.7E-01	n	2.0E+00				
				3.0E-02	I					1		0.1		Mercury (elemental)	7439-97-6	9.4E-01	n	4.8E+00	nm	3.1E-02	n	1.3E-01	n	6.3E-02	n	2.0E+00	9.3E-03	n	1.8E-01	
						3.0E-04	I	V		1			3.1E+00	Methylmercury (1+)	22967-92-6	7.8E-01	n	1.0E+01	n					2.0E-01	n			R		
				1.0E-04	I					1				Mercuric oxide	21908-53-2	5.1E-01	n	6.7E+00	n					1.4E-01	n		3.8E-03	n		
				8.0E-05	I					1		0.1		Mercuric Nitrate	10045-94-0	3.4E-01	n	4.1E+00	n					8.4E-02	n		1.9E-03	n		
				3.0E-05	I			V		1				Mercuric Sulfate	7783-35-9	1.0E-01	n	1.2E+00	n					2.5E-02	n		5.6E-04	n		
				3.0E-05	I					1		0.1		Mercuric Oxide	21908-53-2	1.0E-01	n	2.5E+00	n					6.3E-02	n		4.3E-04	n		
				8.0E-05	I					1		0.1		Mercury	7439-97-6	3.2E-01	n	4.1E+00	n					1.2E-02	n		3.1E-01	n		
				1.0E-04	I	3.0E-04	P	V		1		0.07		Methacrylonitrile	126-98-7	7.8E-01	n	1.0E+01	n	3.1E+00	n	1.3E+01	n	1.9E-01	n		4.3E-05	n		
				5.0E-02	I					1		0.1		Methanol	67-56-1	1.6E+02	n	2.0E+03	n					3.8E+01	n		1.1E-02	n		
				1.0E-03	I	2.0E-01	I	V		1			1.1E+01	Methapyrilene	91-80-5	1.7E+01	c	4.7E+01	c	2.0E-01	c	8.8E-01	c	1.2E+00	c		9.1E-04	c		
				1.0E-03	I					1		0.1		Methiocarb	2032-65-7	8.3E+00	n	1.0E+02	n					2.2E+01	n		4.1E-01	n		
				2.5E-02	I					1		0.1		Methomyl	16752-77-5	2.1E+02	n	2.5E+03	n					5.4E+02	n		1.1E-01	n		
1.0E-02	C	1.4E-05	C							1		0.1		Methoxone	94-74-6	1.8E+01	c	4.7E+01	c	2.0E-01	c	8.8E-01	c	1.2E+00	c		5.1E-04	c		
				5.0E-03	I					1		0.1		Methoxychlor	72-43-5	3.2E+01	n	4.1E+02	n					3.7E+00	n	4.0E+01	2.6E-01	n	2.9E+00	
				8.0E-03	P	1.8E-03	P	V		1		1.7L+02		Methoxyethanol Acetate /	110-49-6	1.1E+01	n	5.1E+01	n	1.0E-01	n	4.4E-01	n	2.1E-01	n		4.5E-05	n		
				8.0E-03	P	2.0E-02	I	V		1		1.1L+02		Methoxyethanol	109-86-4	1.8E+01	n	3.5E+02	n	2.1E+00	n	8.8E+00	n	3.5E+00	n		4.5E-04	n		
				1.0E+00	X			V		1		7.8E+04		Methyl Acetate	79-20-9	7.8E+03	n	1.2E+05	nm					2.0E+03	n		4.1E-01	n		
				3.0E-02	H	2.0E-02	P	V		1		8.8E+03		Methyl Acrylate	96-33-3	1.4E+01	n	8.0E+01	n	2.1E+00	n	8.8E+00	n	1.9E+00	n		5.1E-04	n		
				6.0E-01	I	5.7E+00	I	V		1		2.4E+04		Methyl Ethyl Ketone, 2-Butanone	78-93-3	2.7E+03	n	1.8E+04	n	5.2E+00	n	2.2E+01	n	5.4E+02	n		1.3E-01	n		
		1.8E-03	X	1.0E-03	P	2.0E-06	X	V		1		1.6E+03		Methyl Hydrazine	60-34-4	2.1E-01	n	1.4E+00	n	2.1E-03	n	8.8E-03	n	4.2E-03	n		9.4E-07	n		
				8.0E-02	H	3.0E+00	I	V		1		3.4E+03		Methyl Isobutyl Ketone, 4-methyl-2-pentanone,	108-10-1	5.2E+02	n	5.6E+03	nn	3.1E+02	n	1.3E+03	n	1.2E+02	n		2.6E-02	n		
						1.0E-03	C	V		1		1.7L+04		Methyl Isocyanate	624-83-9	4.8E-01	n	1.6E+00	n	1.6E-0	n	4.4E-01	n	2.1E-01	n		1.9E-05	n		
				1.4E+00	I	7.0E-01	I	V		1		2.4E+03		Methyl Methacrylate	80-62-6	4.4E+02	n	1.8E+03	n	7.3E+01	n	3.1E+02	n	1.4E+02	n		3.6E-02	n		
				2.5E-04	I					1		0.1		Methyl Parathion	298-00-0	1.8E+00	n	2.1E+01	n					4.5E+00	n		1.4E-03	n		
				6.0E-04	X					1		0.1		Methyl Phosphonic Acid	676-15-5	3.8E+02	n	4.8E+03	n					1.2E+02	n		2.7E-02	n		
				6.0E-03	H	4.0E-02	H	V		1		3.8E+02		Methyl Styrene (Mixed Isomers)	25013-15-4	2.4E+01	n	1.8E+02	n	4.7E+00	n	1.9E+01	n	3.8E+00	n		8.2E-03	n		
9.0E-02	C	2.6E-05	C							1		8.1		Methyl methanesulfonate	66-27-3	5.5E+00	c	2.3E+01	c	1.1E-01	c	4.4E-01	c	7.6E-01	c		1.6E-04	c		
1.4E-03	C	2.6E-07	C			3.0E+00	I	V		1		8.8E+03		Methyl tert-Butyl Ether (MTBE)	1634-04-4	4.7E+01	c*	2.1E+02	c*	1.1E+00	c*	4.7E+01	c*	1.4E+01	c*		3.2E-03	c*		
				3.0E-04	X					1		0.1		Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2	1.8E+00	n	2.5E+01	n					6.0E-01	n		2.4E-04	n		
8.0E-03	P			2.0E-02	X					1		0.1		Methyl-5-Nitroaniline, 2-	99-55-8	9.0E+01	c**	2.9E+02	c**					8.1E+00	c**		4.5E-03	c**		
8.5E-03	C	2.4E-03	C							1		0.1		Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	6.8E-02	c	2.9E-01	c	1.2E-03	c	5.1E-03	c	9.4E-03	c		3.2E-06	c		
1.3E-01	C	3.7E-05	C							1		0.1		Methylaniline Hydrochloride, 2-	636-21-5	4.2E+00	c	1.8E+01	c	7.4E-02	c	3.2E-01	c	6.6E-01	c		3.6E-04	c		
				1.0E-02	A					1		0.1		Methylarsonic acid	124-58-3	8.3E+01	n	8.2E+02	n					2.0E+01	n			n		
				2.5E-04	X					1		0.1		Methylbenzene 1-(1-diazene monoxy)-procidurate, 2-	14612-11-7	1.0E+00	n	1.6E+01	n					4.0E+01	n			n		
1.0E-01	X			3.0E-04	X					1		0.1		Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	1.9E+00	n	2.3E+01	c**					6.6E-01	n			n		
2.2E+01	C	6.3E-03	C						M	1		0.1		Methylchloroform, 3-	56-49-5	5.0E-03	c	1.0E-01	s	1.8E-04	s	1.9E-03	c	1.1E-03	c		2.3E-03	s		
2.0E-03	I	1.1E-05	*	6.0E-03	I	6.2E-01	I	V	M	1		3.3E+03		Methylene Chloride	75-09-2	3.5E+01	n	3.1E+02	n	8.3E-01	n	2.2E+02	n	1.1E+01	n	5.0E+00	2.1E-02	n	1.3E-05	
1.0E-01	P	4.3E-04	C	2.0E-03	P				M	1		0.1		Methylene-bis(2-chloroaniline), 4,4-	101-14-4	1.2E+00	c*	2.3E+01	c**	2.4E-03	c	2.9E-02	c	1.6E-01	c*		1.8E-04	c*		

Key: I = IRIS; P = PPRTV; A = ATSDR; C = CalEPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; R = RSA applied (See User Guide for Arsenic notice); c = cancer; * = where n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed saling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information																		Screening Levels														Protection of Ground Water SSLs			
SFO (mg/kg-day)$^{-1}$		IUR (ug/m^3)$^{-1}$		RfD$_o$ (mg/kg-day)		RfC$_i$ (mg/m^3)			mutagen	GIABS	ABS	C$_{sat}$ (mg/kg)	Contaminant	CAS No.	Resident Soil (mg/kg)		Industrial Soil (mg/kg)		Resident Air (ug/m^3)		Industrial Air (ug/m^3)		Tapwater (ug/L)		MCL (ug/L)	Protection of Groundwater SSL (mg/kg)		Protection of Groundwater SSL (mg/kg)	
													Analyte																					
7.6E-02	I	1.5E-05	C								1	0.1	Methylene bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	1.2E+01	c	5.0E+01	c	2.2E-01	c	9.2E-01	c	4.2E+01	c		2.9E+01	c								
1.8E+00	C	4.6E-04	C			2.0E-02	C				1	0.1	Methylenebis(chloroaniline), 4,4'-	101-77-9	2.2E+01	c	1.4E+00	c	9.6E-03	c	3.7E-02	c	4.1E+02	n		2.1E+04	n								
						8.6E-04	I				1	0.1	Methylenediphenyl Diisocyanate	101-68-8	6.5E+04	n	3.6E+05	nm	8.3E-02	n	2.6E-01	n												
				7.0E-02	H			V			1		5.0E+02 Methylstyrene, Alpha-	98-83-9	6.5E+02	n	4.7E+03	n					7.0E+01	n		1.2E+01	n								
				1.3E-01	I						1	0.1	Monocrotor	6216-45-2	8.5E+02	n	1.5E+03	n					2.7E+02	n		3.3E+01	n								
				2.5E-02	I						1	0.1	Morpholine	21087-64-9	1.6E+02	n	2.1E+03	n					4.8E+01	n		1.4E-02	n								
				3.0E-06	P			V			1		2.4E-01 Mineral oils	8012-95-1	2.3E+04	ns	3.5E+05	nns					6.5E+03	n		2.4E+02	n								
1.8E+01	C	5.1E-03	C	2.0E-04	I			V			1		Mirex	2385-85-5	3.6E-02	c*	1.7E-01	c	2.5E-04	c	2.4E-03	c	6.8E-04	c		6.2E-04	c								
				2.0E-03	I						1	0.1	Molinate	2212-67-1	1.3E+01	n	1.6E+02	n					3.0E+00	n		1.7E+00	n								
				5.0E-03	I						1		Molybdenum	7439-98-7	3.9E+01	n	5.8E+02	n					1.0E+01	n		2.0E-01	n								
				1.6E-01	I						1		Monochloramine	10599-90-3	7.8E+02	n	1.2E+04	n					2.0E+02	n	4.0E+03									
				2.0E-03	P						1	0.1	Monomethylaniline	100-61-8	1.3E+01	n	1.6E+02	n					3.8E+00	n		1.4E-03	n								
				3.0E-04	X						1	0.1	N,N-Diphenyl-1,4-benzenediamine	74-31-7	1.8E+00	n	2.5E+01	n					3.6E-01	n		3.7E-02	n								
				2.0E-03	I			V			1		Naled	300-76-5	1.6E+01	n	2.3E+02	n					4.0E+00	n		1.6E-03	n								
				3.0E-02	X	1.0E-01	P	V			1		Naphtha, High Flash Aromatic (HFAN)	64742-95-6	2.3E+02	n	3.5E+03	n	1.0E+01	n	4.4E+01	n	1.5E+01	n		2.6E+01	n								
1.4E+00	C	0.0E+00	C								1	0.1	Naphthalene, 2-	91-20-3	3.0E+01	c	1.3E+00	c					3.8E+02	c		2.6E-01	c								
				1.0E-01	I						1	0.1	Nitrobenzene	98-95-3	6.1E+00	n	8.2E+01	n					1.0E+02	n		1.3E+00	n								
		2.6E-04	C	1.1E-02	C	1.4E-05	C				1	0.1	Nickel Acetate	373-02-4	6.7E+01	n	8.1E+02	n	1.6E-03	n	6.1E-03	n	2.2E+01	n											
		2.6E-04	C	1.1E-02	C	1.4E-05	C				1	0.1	Nickel Carbonate	3333-67-3	6.7E+01	n	8.1E+02	n	1.6E-03	n	6.1E-03	n	2.2E+01	n											
		2.6E-04	C	1.1E-02	C	1.4E-05	C	V			1		Nickel Carbonyl	13463-39-3	8.2E+01	n	1.1E+03	n	1.5E-03	n	5.6E-03	n	2.0E+00	n											
		2.6E-04	C	1.1E-02	C	2.0E-05	C			0.04			Nickel Hydroxide	12054-48-7	8.2E+01	n	1.1E+03	n	1.5E-03	n	5.6E-03	n	2.0E+01	n											
		2.6E-04	C	1.1E-02	C	2.0E-05	C			0.04			Nickel Oxide	1313-99-1	8.4E+01	n	1.2E+03	n	1.5E-03	n	5.6E-03	n	2.0E+01	n											
		2.6E-04	I	1.1E-02	C	1.4E-05	C			0.04			Nickel Refinery Dust	NA	8.2E+01	n	1.1E+03	n	1.5E-03	n	5.6E-03	n	2.0E+01	n		3.2E+00	n								
		2.6E-04	C	2.0E-02	I	9.0E-05	A			0.04			Nickel Soluble Salts	7440-02-0	1.5E+02	n	2.2E+03	n	9.4E-03	n	3.9E-02	n	3.8E+01	n		7.6E+00	n								
1.7E+00	C	4.8E-04	I	1.1E-02	C	1.4E-05	C			0.04			Nickel Subsulfide	12035-72-2	4.1E+01	c	1.9E+00	c	1.6E-03	n	6.1E-03	n	4.5E+02	c											
		2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1	Nickelocene	1271-28-9	6.1E+01	n	8.1E+02	n	1.1E-03	n	4.1E-03	n	1.5E+01	n											
				1.0E+00	I					1			Nitrate	14797-55-8	1.3E+04	n	1.8E+05	nn					3.2E+03	n	1.0E+04									
										1			Nitrate (as N)	NA											1.0E+04									
				1.0E-01	I					1			Nitrite	14797-65-0	1.2E+03	n	1.8E+04	n					2.0E+02	n	1.0E+03									
				1.0E-02	X	6.0E-06	X			1	0.1		Nitroaniline, 2-	88-74-4	6.3E+01	n	8.0E+02	n	6.2E-03	n	2.7E-02	n	1.9E+01	n		6.6E-03	n								
2.0E-02	P			4.0E-03	P	8.0E-03	P			1	0.1		Nitroaniline, 4-	100-01-6	2.5E+01	n	1.1E+02	c**	6.3E-01	n	2.7E+00	n	3.6E+00	c**		1.6E-03	c**								
		4.9E-05	I	2.0E-03	I	9.0E-03	I	V		1		3.1E-02	Nitrobenzene	98-95-3	5.1E+00	c**	2.2E+01	c**	7.0E-02	c*	3.1E-01	c*	1.4E+01	c**		6.2E-04	c**								
				3.0E-03	P					1	0.1		Nitrocellulose	9004-70-0	1.9E+07	nns	2.5E+08	nns					6.9E+06	n		1.4E+03	n								
				7.0E-02	H					1	0.1		Nitrofurantoin	67-20-9	4.4E+02	n	5.7E+03	n					1.4E+02	n		4.1E-02	n								
3E+00	C	3.7E-04	C							1	0.1		Nitrogen mustard	55-86-7	4.2E-01	c	1.8E+00	c	1.6E-03	L	3.5E-02	c	6.6E-02	c		1.4E-03	c								
1.7E-02	P			1.0E-04	P					1	0.1		Nitroglycerin	55-63-0	6.3E+01	n	8.2E+02	n					2.0E+01	n		0.02E-05	n								
				1.0E-01	I					1	0.1		Nitroguanidine	556-88-7	6.3E+02	n	8.2E+03	n					2.0E+02	n		4.8E-02	n								
		6.8E-06	P			5.0E-03	P	V		1		1.8E-04	Nitrogen mustard	55-7[illegible]-5	4.2E+00	c**	2.4E+01	c**	3.2E-01	c**	1.4E+00	c**	8.4E-01	c**		1.6E-04	c**								
		2.7E-03	H			2.0E-02	I	V		1		4.0E-03	Nitrosamines	[illegible]-45-9	1.4E-02	c	6.0E-02	c	1.6E-03	c	4.9E-03	c	2.1E-03	c		5.4E-07	c								
2.7E+01	C	7.7E-03	C						M	1	0.1		Nitrosodi-N-ethylamine, N-	759-73-9	4.3E-03	c	8.5E-02	c	1.3E-04	c	1.0E-03	c	9.2E-04	c		2.7E-07	c								
1.5E+02	C	3.4E-02	C						M	1	0.1		Nitrosodimethylamine, N-	62-75-9	1.6E-03	c	1.9E-02	c	3.6E-05	c	1.3E-04	c	2.1E-04	c		4.0E-08	c								
5.4E+00	I	1.9E-03	I					V		1			Nitroso-di-N-butylamine, N-	924-16-3	8.0E-02	c	4.6E-01	c	1.6E-03	c	7.7E-03	c	2.7E-03	c		5.6E-06	c								
7.0E+00	I	2.0E-03	C							1	0.1		Nitroso-di-N-propylamine, N-	621-64-7	7.0E-02	c	3.3E-01	c	1.4E-03	c	6.1E-03	c	1.1E-02	c		3.1E-06	c								
2.8E+00	I	8.6E-04	C							1	0.1		Nitrosodiphenylamine, N-	86-30-6	9.2E-01	c	3.9E-03	c	1.5E-02	c	2.6E-02	c	2.7E+00	c		2.6E-06	c								
1.5E+02	I	4.3E-02	I						M	1	0.1		Nitrosoethylmethylamine, N-	55-18-5	8.1E-04	c	1.1E-02	c	2.4E-05	c	2.9E-04	c	1.7E-04	c		6.8E-06	c								
5.1E+01	I	1.4E-02		6.0E-06	P	4.0E-05	X	V	M	1		2.4E-03	Nitrosomethylethylamine, N-	62-75-9	2.6E-03	c*	7.2E-05	c*	8.8E-04	c*	1.1E-04	c*	2.6E-06	c*		1.2E-07	c*								
4.9E-03	I	2.6E-06	C							1	0.1		Nitrosomorpholine, N-	59-89-2	1.1E-02	c	4.7E-02	c	1.1E-06	c	4.7E-06	c	1.2E-01	c		6.6E-07	c								
2.2E+01	I	6.3E-03	C					V		1		1.1E-05	Nitrosopiperidine, N-	10595-95-6	2.0E-02	c	8.1E-02	c	4.5E-04	c	1.9E-03	c	7.1E-04	c		2.5E-07	c								
6.7E+00	C	1.9E-03	C							1	0.1		Nitrosopyrrolidine, N-	930-55-2	8.1E-02	c	3.4E-01	c	1.6E-03	c	1.2E-02	c	2.5E-03	c		2.5E-06	c								
8.4E+00	C	2.1E-03	C							1	0.1		Nitrosopyrrolidine, [N-]	1.-.-75-4	5.8E-02	c	2.4E-01	c	1.0E-03	c	4.3E-03	c	8.2E-03	c		2.4E-06	c								
2.1E+00	I	6.1E-04	I							1	0.1		Nitrosopyrrolidine, N-	930-55-2	2.6E-01	c	1.1E+00	c	4.6E-03	c	2.0E-02	c	3.7E-02	c		1.4E-05	c								
				1.0E-04	X					1	0.1		Nitrotoluene, m-	99-08-1	6.3E-01	n	8.2E+00	n					1.7E-01	n		1.1E-04	n								
2.2E-01	P			9.0E-04	P			V		1		1.3E+01	Nitrotoluene, o-	88-72-2	3.2E-03	c**	1.4E-01	c**					3.1E-01	c**		7.9E-04	c**								
1.6E-02	P			4.0E-03	P					1	0.1		Nitrotoluene, p-	99-99-0	2.5E+01	n	1.4E+02	c**					4.2E+00	c**		3.8E-03	c**								
				3.0E-04	X	2.0E-02	P	V		1		8.9E+00	Nonane, n-	111-84-2	1.1E+00	n	7.2E+00	ns	2.1E+00	n	8.8E+00	n	5.3E+01	n		7.9E-03	n								
				4.0E-02	I					1	0.1		Norflurazon	27314-13-2	2.5E+02	n	3.3E+03	n					7.7E+01	n		0.02E-01	n								
				7.0E-04	I					1	0.1		Nuarol	85509-19-9	4.4E+00	n	5.7E+01	n					1.1E+00	n		1.8E-01	n								
				3.0E-03	I					1	0.1		Octabromodiphenyl Ether	32536-52-0	1.0E+01	n	2.5E+02	n					8.0E+00	n		1.3E+00	n								
				5.0E-02	I					1	0.05		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	3.1E+02	n	5.1E+03	n					1.1E+02	n		1.3E-01	n								
				2.0E-03	H					1	0.1		Octamethylpyrophosphoramide	152-16-9	1.3E+01	n	1.6E+02	n					4.0E+00	n		0.02E-04	n								
				5.0E-02	I					1	0.1		Oryzalin	19044-88-3	3.2E+02	n	4.1E+03	n					9.1E+01	n		1.1E-01	n								
				6.0E-03	I					1	0.1		Oxamyl	23135-22-0	1.8E+02	n	2.1E+03	n					5.6E+01	n	2.0E+02	1.1E-02	n	4.4E-02	
				1.3E-02	I					1	0.1		Paclobutrazol	76738-62-0	8.2E+01	n	1.1E+03	n					2.3E+01	n		4.6E-02	n								
				4.5E-03	I					1	0.1		Paraquat Dichloride	1910-42-5	2.6E+01	n	3.7E+02	n					8.0E+00	n		1.3E-01	n								

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

SFO (mg/kg-day)^-1	key	IUR (ug/m³)^-1	key	RfDo (mg/kg-day)	key	RfCi (mg/m³)	key	mutagen	volatile	GIABS	ABS	Csat (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m³)	key	Industrial Air (ug/m³)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
				6.0E-03	H					1	0.1		Parathion	56-38-2	3.8E+01	n	4.9E+02	n					8.6E+00	n		4.7E-02	n	
				5.0E-02	H				V	1			Pebulate	1114-71-2	3.9E+02	n	5.8E+03	n					5.6E+01	n		4.5E-02	n	
				4.0E-02	I					1	0.1		Pendimethalin	40487-42-1	2.5E+02	n	3.3E+03	n					1.9E+01	n		2.5E-01	n	
				2.0E-03	I					1	0.1		Pentabromodiphenyl Ether	32534-81-9	1.3E+01	n	1.6E+02	n					4.0E+00	n		1.3E-01	n	
				1.0E-04	I					1	0.1		Pentabromodiphenyl ether, 2,2',4,4',5- (BDE-99)	60348-60-9	6.3E-01	n	8.2E+00	n					2.0E-01	n		6.7E-03	n	
				8.0E-04	I				V	1			Pentachlorobenzene	608-93-5	6.3E+00	n	9.3E+01	n					3.2E+00	n		2.6E-02	n	
9.0E-02	P								V	1		4.5E+02	Pentachloroethane	76-01-7	7.7E+00	c	3.6E+01	c					6.4E-01	c		2.1E-04	c	
2.6E-01	H			3.0E-03	I				V	1			Pentachloronitrobenzene	82-68-8	2.7E+00	c**	1.3E+01	c*					1.2E-01	c*		1.4E-03	c*	
4.0E-01	I	5.1E-06	C	5.0E-03	I					1	0.25		Pentachlorophenol	87-86-5	1.0E+00	c*	4.0E+00	c*	5.5E-01	c	2.4E+00	c	4.0E-02	c*	1.0E+00	4.0E-04	c*	1.0E-02
4.0E-03	X			2.0E-03	P					1	0.1		Pentaerythritol tetranitrate (PETN)	78-11-5	1.3E+01	n	1.6E+02	n					3.9E+00	n		6.6E-03	n	
						1.0E+00	P		V	1		3.9E+02	Pentane, n-	109-66-0	8.1E+02	n	3.4E+03	n	1.0E+03	n	4.4E+03	n	2.1E+03	n		1.0E+01	n	
													Perchlorates															
				7.0E-04	I					1			~Ammonium Perchlorate	7790-98-9	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				7.0E-04	I					1			~Lithium Perchlorate	7791-03-9	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				7.0E-04	I					1			~Perchlorate and Perchlorate Salts	14797-73-0	5.5E+00	n	8.2E+01	n					1.4E+00	n	1.5E+01 F		n	
				7.0E-04	I					1			~Potassium Perchlorate	7778-74-7	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				7.0E-04	I					1			~Sodium Perchlorate	7601-89-0	5.5E+00	n	8.2E+01	n					1.4E+00	n			n	
				2.0E-02	P				V	1			Perfluorobutane Sulfonate	375-73-5	1.6E+02	n	2.3E+03	n					3.8E+01	n		2.1E-02	n	
				5.0E-02	I					1	0.1		Permethrin	52645-53-1	3.2E+02	n	4.1E+03	n					1.0E+02	n		2.4E+01	n	
2.2E-03	C	6.3E-07	C							1	0.1		Phenacetin	62-44-2	2.5E+02	c	1.0E+03	c	4.5E+00	c	1.9E+01	c	3.4E+01	c		9.7E-03	c	
				2.5E-01	I					1	0.1		Phenmedipham	13684-63-4	1.6E+03	n	2.1E+04	n					4.0E+02	n		2.1E+00	n	
				3.0E-01	I	2.0E-01	C			1	0.1		Phenol	108-95-2	1.9E+03	n	2.5E+04	n	2.1E+01	n	8.8E+01	n	5.8E+02	n		3.3E-01	n	
				5.0E-04	X					1	0.1		Phenothiazine	92-84-2	1.2E+00	n	4.1E+01	n					4.3E-01	n		1.4E-03	n	
				6.0E-03	I					1	0.1		Phenylenediamine, m-	108-45-2	3.8E+02	n	4.9E+03	n					1.2E+01	n		3.3E-03	n	
4.7E-02	H									1	0.1		Phenylenediamine, o-	95-54-5	1.2E+01	c	4.9E+01	c					1.6E+00	c		4.4E-04	c	
				1.9E-01	H					1	0.1		Phenylenediamine, p-	106-50-3	1.2E+03	n	1.6E+04	n					3.6E+02	n		1.0E-01	n	
1.9E-03	H									1	0.1		Phenylphenol, 2-	90-43-7	2.9E+02	c	1.2E+03	c					3.0E+01	c		4.0E-01	c	
				2.0E-04	H					1	0.1		Phorate	298-02-2	1.3E+00	n	1.6E+01	n					3.0E-01	n		3.4E-04	n	
						3.0E-04	I		V	1		1.0E+03	Phosgene	75-44-5	3.1E-02	n	1.3E-01	n	3.1E-02	n	1.3E-01	n						
				2.0E-02	I					1	0.1		Phosmet	732-11-6	1.3E+02	n	1.6E+03	n					3.7E+01	n		6.3E-01	n	
													Phosphates, Inorganic															
				4.9E+01	P					1			~Aluminum metaphosphate	13776-88-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Ammonium polyphosphate	68333-79-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Calcium pyrophosphate	7790-76-3	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Diammonium phosphate	7783-28-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Dicalcium phosphate	7757-93-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Dimagnesium phosphate	7782-75-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Dipotassium phosphate	7758-11-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Disodium phosphate	7558-79-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Monoaluminum phosphate	13530-50-2	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Monoammonium phosphate	7722-76-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Monocalcium phosphate	7758-23-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Monomagnesium phosphate	7757-86-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Monopotassium phosphate	7778-77-0	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Monosodium phosphate	7558-80-7	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Polyphosphoric acid	8017-16-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Potassium tripolyphosphate	13845-36-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium acid pyrophosphate	7758-16-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium aluminum phosphate (acidic)	7785-88-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium aluminum phosphate (anhydrous)	10279-59-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium aluminum phosphate (tetrahydrate)	10305-76-7	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium hexametaphosphate	10124-56-8	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium polyphosphate	68915-31-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium trimetaphosphate	7785-84-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Sodium tripolyphosphate	7758-29-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Tetrapotassium phosphate	7320-34-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Tetrasodium pyrophosphate	7722-88-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	15136-87-5	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Tricalcium phosphate	7758-87-4	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Trimagnesium phosphate	7757-87-1	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Tripotassium phosphate	7778-53-2	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				4.9E+01	P					1			~Trisodium phosphate	7601-54-9	3.8E+05	nm	5.7E+06	nm					9.7E+04	n			n	
				3.0E-04	I	3.0E-04	I		V	1			Phosphine	7803-51-2	2.3E+00	n	3.5E+01	n	3.1E-02	n	1.3E-01	n	5.7E-02	n			n	
				4.9E+01	P	1.0E-02	I			1			Phosphoric Acid	7664-38-2	3.8E+05	nm	2.8E+06	nm	1.0E+00	n	4.4E+00	n	9.7E+04	n			n	
				2.0E-05	I				V	1			Phosphorus, White	7723-14-0	1.6E+00	n	2.3E+01	n					4.0E-02	n		1.9E-04	n	

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Toxicity and Chemical-specific Information													Contaminant		Screening Level												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	M o d e	IUR (ug/m^3)$^{-1}$	A b s	RfD$_o$ (mg/kg-day)	A b s	RfC$_i$ (mg/m^3)	M o d e	V o l a	muta-gen	GIABS	ABS	C$_{sat}$ (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Leachate SSL (mg/kg)	key	Leachate MCL-based SSL (mg/kg)
													Phthalates															
1.4E-02	I	2.4E-06	C	2.0E-02	I					1	0.1		-Bis(2-ethylhexyl)phthalate	117-81-7	3.9E+01	c**	1.8E+02	c*	1.2E+00	c	5.1E+00	c	6.0E+00	c**	6.0E+00	1.2E+00	c**	1.4E+00
				1.0E+00	I					1	0.1		-Butylphthalyl Butylglycolate	85-70-1	8.3E+03	n	8.2E+04	n					1.3E+03	n		2.6E+01	n		
				1.0E-01	I					1	0.1		-Diethyl Phthalate	84-66-2	8.2E+04	n	8.2E+05	n					9.0E+01	n		2.8E+01	n		
				8.0E-01	I					1	0.1		-Diethyl Phthalate	84-66-2	5.1E+03	n	6.0E+04	n					1.5E+03	n		6.1E+01	n		
				1.0E-01	I		V			1			-Dimethylterephthalate	120-61-6	7.0E+02	n	1.2E+04	n					1.9E+02	n		4.1E+02	n		
				1.0E-01	P					1	0.1		-Hexyl Phthalate, di-n-	117-84-0	8.3E+01	n	8.2E+02	n					2.0E+01	n		8.1E+03	n		
				1.0E+00	H					1	0.1		-Phthalic Acid, P-	100-21-0	8.3E+03	n	8.2E+04	n					1.9E+03	n		6.8E+01	n		
				2.0E+00	I	2.0E-02	C			1	0.1		-Phthalic Anhydride	85-44-9	1.3E+04	n	1.6E+05	nm	2.1E+00	n	8.8E+00	n	3.9E+03	n		8.9E-01	n		
				7.5E-01	I					1	0.1		-Toluene	1918-02-1	4.4E+02	n	5.7E+03	n					1.4E+02	n	5.0E+02	3.8E-02	s	1.4E-01	
				1.0E-04	X					1	0.1		Peracetic Acid, 2-Amino-4-Bromophenol	96-81-3	8.3E-01	n	8.2E+00	n					2.0E-01	n		1.3E-04	n		
				1.0E-02	I					1	0.1		Pimephos, Methyl	29232-93-7	8.3E+01	n	8.2E+02	n					1.2E+01	n		1.8E-02	n		
2.2E+01	C	6.0E-03	C	7.0E-06	H					1	0.1		-Polychlorinated Biphenyls	1336-36-3	1.8E-02	c**	[illegible]	c**	3.3E-04	c	1.4E-03	c	2.7E-03	c**			s**		
													Polychlorinated Biphenyls (PCBs)																	
7.0E-02	S	2.0E-06	S	7.0E-05	I		V			1	0.14		-Aroclor 1016	12674-11-2	4.1E-01	n	5.1E+00	n	1.4E-01	c	6.1E-01	c	1.4E-01	n		1.1E-02	n		
2.0E+00	S	5.7E-04	S				V			1	0.14		-Aroclor 1221	11104-28-2	1.7E-01	c	7.2E-01	c	4.8E-03	c	2.1E-02	c	4.0E-03	c		7.1E-04	c		
2.0E+00	S	5.7E-04	S				V			1	0.14		-Aroclor 1232	11141-16-5	1.7E-01	c	7.2E-01	c	4.9E-03	c	2.1E-02	c	4.0E-03	c		7.9E-04	c		
2.0E+00	S	5.7E-04	S				V			1	0.14		-Aroclor 1242	53469-21-9	2.3E-01	c	9.7E-01	c	4.9E-03	c	2.1E-02	c	4.0E-03	c		1.3E-03	c		
2.0E+00	S	5.7E-04	S				V			1	0.14		-Aroclor 1248	12672-29-6	2.3E-01	c	9.4E-01	c	4.8E-03	c	2.1E-02	c	7.8E-03	c		1.3E-03	c		
2.0E+00	S	5.7E-04	S	2.0E-05	I		V			1	0.14		-Aroclor 1254	11097-69-1	1.2E-01	n	9.7E-01	c*	4.8E-03	c	2.1E-02	c	7.8E-03	c**		2.6E-03	c**		
2.0E+00	S	5.7E-04	S				V			1	0.14		-Aroclor 1260	11096-82-5	2.4E-01	c	9.9E-01	c	4.8E-03	c	2.1E-02	c	7.8E-03	c		6.6E-03	c		
				6.0E-04	X		V			1	0.14		-Aroclor 5432	11126-42-4	2.3E+00	n	9.4E+01	n					1.2E+00	n		3.9E-01	n		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Heptachlorobiphenyl, 2,3,3',4,4',5,5' (PCB 189)	39635-31-9	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		2.8E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Hexachlorobiphenyl, 2,3',4,4',5,5' (PCB 167)	52663-72-6	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Hexachlorobiphenyl, 2,3,3',4,4',5 (PCB 156)	38380-08-4	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Hexachlorobiphenyl, 3,3',4,4',5,5' (PCB 169)	32774-16-6	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Pentachlorobiphenyl, 2,3,3',4,4' (PCB 105)	32598-14-4	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Pentachlorobiphenyl, 2,3',4,4',5 (PCB 118)	31508-00-6	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Pentachlorobiphenyl, 2,3',4,4',5' (PCB 123)	65510-44-3	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Tetrachlorobiphenyl, 3,3',4,4' (PCB 77)	32598-13-3	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
3.8E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		-Trichlorobiphenyl, 3,4,4' (PCB 37)	38444-90-5	1.2E-01	c**	5.1E-01	c**	2.5E-03	c*	1.1E-02	c*	4.0E-03	c*		1.7E-03	c*		
1.3E+01	E	3.8E-03	E	7.0E-05	E	4.0E-04	E	V		1	0.14		-Pentachlorobiphenyl, 3,3',4,4',5 (PCB 126)	57465-28-8	1.7E-05	c**	1.5E-04	c**	7.4E-07	c*	3.2E-06	c*	1.2E-05	c*		3.8E-07	c*		
2.0E+00	I	5.7E-04					V			1	0.14		-Polychlorinated Biphenyls (high risk)	1336-36-3	2.3E-01	s	9.7E-01	s	4.8E-03	c	2.1E-02	s							
4.0E-01	I	1.0E-04	I				V			1	0.14		-Polychlorinated Biphenyls (low risk)	1336-36-3					2.0E-02	c	1.4E-01	c	4.0E-04	s	8.0E-01	6.0E-02	s	7.8E-02	
7.0E-02	I	2.0E-05	I				V			1	0.14		-Polychlorinated Biphenyls (lowest risk)	1336-36-3					1.4E-01	c	6.1E-01	c							
1.3E+01	E	3.8E-03	E	7.0E-05	E	4.0E-04	E			1	0.14		-Tetrachlorobiphenyl, 3,3',4,4' (PCB 77)	32598-13-3	1.8E-02	c**	1.0E-01	c**	7.4E-07	c*	3.2E-06	c*	6.0E-03	c**		9.4E-04	c**		
3.8E+01	E	1.1E-02	E	2.3E-04	E	1.3E-04	E	V		1	0.14		-Tetrachlorobiphenyl, 3,4,4',5 (PCB 81)	70362-50-4	1.2E-02	c**	4.9E-02	c**	2.5E-04	c*	1.1E-03	c*	4.0E-04	c*		6.2E-04	c**		
						6.0E-04	I			1	0.		Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	8.5E+04	n	3.6E+05	nm	8.3E-02	n	2.9E-01	n							
													Polycyclic Aromatic Hydrocarbons (PAHs)																	
				6.0E-02			V			1	0.13		-Acenaphthene	83-32-9	3.7E+03	n	4.5E+04	n					5.3E+01	n		9.8E-01	n		
				3.0E-01	I		V			1	0.13		-Anthracene	120-12-7	1.8E+03	n	2.3E+04	n					1.8E+02	n		5.8E+00	n		
7.3E-01	E	1.1E-04	C				V	M		1	0.13		-Benzo[a]anthracene	56-55-3	1.0E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	1.3E-02	c		4.1E-03	c		
1.3E+00	C	1.1E-04	C					M		1	0.13		-Benzo[a]pyrene	50-32-8	1.0E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	2.0E-02	c	2.0E-01	4.0E-03	c	2.4E-01	
7.3E-01	I	1.1E-03	C					M		1	0.13		-Benzo[b]fluoranthene	205-99-2	1.0E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	2.0E-02	c		4.1E-03	c		
7.3E-01	E	1.1E-04	C					M		1	0.13		-Benzo[j]fluoranthene	205-82-3	1.0E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	2.0E-02	c		4.1E-03	c		
7.3E-03	E	1.1E-05	C					M		1	0.13		-Benzo[k]fluoranthene	207-08-9	1.0E+00	c	2.9E+01	c	9.2E-01	c	1.1E+00	c	2.0E+00	c		4.1E-01	c		
				6.0E-02	I		V			1	0.13		-Chloronaphthalene, Beta-	91-58-7	4.8E+02	n	6.0E+03	n					7.6E+01	n		3.0E-01	n		
7.3E-03	E	1.1E-05	C					M		1	0.13		-Chrysene	218-01-9	1.0E+01	c	2.9E+02	c	9.2E-02	c	1.1E+00	c	2.4E+00	c		1.2E+00	c		
7.3E-02	E	1.1E-03	C					M		1	0.13		-Dibenz[a,h]anthracene	53-70-3	1.0E-02	c	2.9E-01	c	9.2E-04	c	1.1E-02	c	3.4E-03	c		1.1E-02	c		
1.2E+01	C	1.1E-03	C							1	0.13		-Dibenzo(a,e)pyrene	192-65-4	4.2E-02	c	1.6E-01	c	2.6E-03	c	1.1E-02	c	6.5E-03	c		8.4E-02	c		
2.5E+02	C	7.1E-02	C					M		1	0.13		-Dimethylbenz[a]anthracene, 7,12-	57-97-6	4.8E-04	c	1.4E-03	c	1.4E-05	c	1.7E-04	c	1.8E-04	c		9.3E-05	c		
				4.0E-02						1	0.13		-Fluoranthene	206-44-0	2.4E+02	n	3.0E+03	n					8.0E+01	n		2.6E+00	n		
				4.0E-02	I		V			1	0.13		-Fluorene	86-73-7	2.4E+02	n	3.0E+03	n					2.9E+01	n		5.4E-01	n		
7.3E-01	E	1.1E-04	C					M		1	0.13		-Indeno[1,2,3-cd]pyrene	193-39-5	1.0E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c		1.1E-01	c		
2.9E-02	P			1.0E-03	A		V			1	0.13		-Methylnaphthalene, 1-	90-12-0	1.8E+01	c*	2.4E+02	c*					1.1E+01	c*		5.8E-03	c*		
				4.0E-03	I		V			1	0.13		-Methylnaphthalene, 2-	91-57-6	2.4E+01	n	3.0E+02	n					3.8E+00	n		1.9E-03	n		
		3.4E-05	C	2.0E-02	I	3.0E-01	V			1	0.13		-Naphthalene	91-20-3	3.8E+00	c**	1.7E+01	c*	8.3E-02	c**	3.6E-01	c**	1.7E+01	c**		5.4E-04	c**		
1.2E+00	C	1.1E-04	C							1	0.13		-Nitropyrene, 4-	57835-92-4	4.2E-01	c	1.8E+00	c	2.6E-03	c	1.1E-02	c	1.4E-02	c		3.2E-03	c		
				3.0E-02	I		V			1	0.13		-Pyrene	129-00-0	1.8E+02	n	2.3E+03	n					1.2E+01	n		1.3E+00	n		
				2.0E-02	P					1	0.1		Potassium Perfluorobutane Sulfonate	29420-49-3	1.2E+02	n	1.6E+03	n					4.0E+01	n					
7.5E-01	I			8.0E-01						1	0.1		Prometon	1610-18-0	3.8E+03	c*	1.5E+01	c*					3.7E-01	c*		1.9E-01	c*		
				6.0E-03	H		V			1			Prometryn	7287-19-6	4.7E+01	n	7.0E+02	n					2.0E+00	n		1.6E-01	n		
				1.5E-02	I					1	0.1		Propachlor	1918-16-7	9.5E+01	n	1.2E+03	n					2.5E+01	n		1.2E-02	n		
				4.0E-03	I					1	0.1		Pronamide	23950-58-5	2.5E+02	n	3.3E+03	n					9.0E+01	n		1.5E+00	n		
				1.3E-02	I					1	0.1		Propachlor	1918-16-7	8.2E+01	n	1.1E+03	n					2.5E+01	n		1.1E-02	n		

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information													Contaminant		Screening Levels											Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	k e y	IUR (ug/m^3)$^{-1}$	k e y	RfD$_o$ (mg/kg-day)	k e y	RfC$_i$ (mg/m^3)	k e y	v o c	muta-gen	GIABS	ABS	C$_{sat}$ (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
				5.0E-03	I					1	0.1		Propanil	709-98-8	3.2E+01	n	4.1E+02	n					6.3E+00	n		4.9E-03	n	
				2.0E-02	I					1	0.1		Propargite	2312-35-8	1.3E+02	n	1.6E+03	n					1.6E+01	n		[illegible]	n	
				2.0E-03	I			V		1		1.1E+05	Propargyl Alcohol	107-19-7	1.6E+01	n	2.3E+02	n					4.0E+00	n		8.1E-04	n	
				2.0E-02	I					1	0.1		Propazine	139-40-2	1.3E+02	n	1.6E+03	n					3.4E+01	n		2.6E-02	n	
				2.0E-02	I					1	0.1		Propham	122-42-9	1.3E+02	n	1.6E+03	n					3.5E+01	n		[illegible]	n	
				1.3E-02	I					1	0.1		Propiconazole	60207-90-1	8.2E+01	n	1.1E+03	n					2.1E+01	n		6.9E-02	n	
						8.0E-03	I	V		1		3.3E+04	Propionaldehyde	123-38-6	7.5E+00	n	3.1E+01	n	8.3E-01	n	3.5E+00	n	1.7E+00	n		3.4E-04	n	
				1.0E-01	X	1.0E+00	X	V		1		2.6E+02	Propyl benzene	103-65-1	3.8E+03	ns	2.4E+04	ns	1.0E+03	n	4.4E+03	n	6.6E+02	n		1.2E+00	n	
						3.0E+00	C	V		1		3.0E+02	Propylene	115-07-1	2.2E+03	n	9.3E+03	ns	3.1E+03	n	1.3E+04	n	6.3E+03	n		6.6E+00	n	
				2.0E+01	P					1	0.1		Propylene Glycol	57-55-6	1.3E+06	nm	1.6E+06	nm					4.0E+05	n		8.1E+01	n	
						2.7E-04	A			1	0.1		Propylene Glycol Dinitrate	6423-43-4	3.8E+04	n	1.6E+06	nm	2.8E-01	n	1.2E+00	n						
				7.0E-01	H			V		1		6.5E+04	Propylene Glycol Monoethyl Ether	1569-02-4	5.5E+03	n	8.2E+04	n					1.4E+03	n		2.9E-01	n	
				7.0E-01	H	2.0E+00	I	V		1		1.1E+05	Propylene Glycol Monomethyl Ether	107-98-2	4.1E+03	n	3.7E+04	n	2.1E+03	n	8.8E+03	n	3.2E+02	n		6.9E-02	n	
2.4E-01	I	3.7E-06	I			3.0E-02	I	V		1		7.8E+04	Propylene Oxide	75-56-9	2.1E+00	c*	9.7E+00	c*	7.6E-01	c**	3.3E+00	c**	2.7E-01	c*		5.6E-05	c*	
				2.5E-01	I					1	0.1		Pursuit	81335-77-5	1.6E+03	n	2.1E+04	n					4.7E+02	n		4.1E-01	n	
				2.5E-02	I					1	0.1		Pydrin	51630-58-1	1.6E+02	n	2.1E+03	n					5.0E+01	n		3.3E+01	n	
				1.0E-03	I			V		1		5.3E+05	Pyridine	110-86-1	7.8E+00	n	1.2E+02	n					2.0E+00	n		6.8E-04	n	
				5.0E-04	I					1	0.1		Quinalphos	13593-03-8	3.2E+00	n	4.1E+01	n					5.1E-01	n		4.3E-03	n	
3.0E+00	I									1	0.1		Quinoline	91-22-5	1.8E-01	c	7.7E-01	c					2.4E-02	c		7.8E-06	c	
						3.0E-02	A			1			Refractory Ceramic Fibers	NA	4.3E+06	nm	1.8E+07	nm	3.1E+00	n	1.3E+01	n						
				3.0E-02	I					1	0.1		Resmethrin	10453-86-8	1.8E+02	n	2.5E+03	n					6.7E+00	n		4.2E+00	n	
				5.0E-02	H			V		1			Ronnel	299-84-3	3.9E+02	n	5.8E+03	n					4.1E+01	n		3.7E-01	n	
				4.0E-03	I					1	0.1		Rotenone	83-79-4	2.5E+01	n	3.3E+02	n					6.1E+00	n		3.3E+00	n	
2.2E-01	C	6.3E-05	C						M	1	0.1		Safrole	94-59-7	5.5E-01	c	1.0E+01	c	1.6E-02	c	1.9E-01	c	9.5E-02	c		6.0E-05	c	
				2.0E-02	I					1	0		Savey	78587-05-0	1.6E+02	n	2.1E+03	n					3.1E+01	n		4.8E-02	n	
				5.0E-03	I					1			Selenious Acid	7783-00-8	3.9E+01	n	5.8E+02	n					1.0E+01	n				
				5.0E-03	I	2.0E-02	C			1			Selenium	7782-49-2	3.9E+01	n	5.8E+02	n	2.1E+00	n	8.8E+00	n	1.0E+01	n	5.0E+01	5.2E-02	n	2.6E-01
				5.0E-03	C	2.0E-02	C			1			Selenium Sulfide	7446-34-6	3.9E+01	n	5.8E+02	n	2.1E+00	n	8.8E+00	n	1.0E+01	n				
				9.0E-02	I					1	0.1		Sethoxydim	74051-80-2	5.7E+02	n	7.4E+03	n					1.0E+02	n		7.5E-01	n	
						3.0E-03	C			1			Silica (crystalline, respirable)	7631-86-9	4.3E+06	nm	1.8E+07	nm	3.1E-01	n	1.3E+00	n						
				5.0E-03	I					0.04			Silver	7440-22-4	3.9E+01	n	5.8E+02	n					9.4E+00	n		8.0E-02	n	
1.2E-01	H			5.0E-03	I					1	0.1		Simazine	122-34-9	4.1E+00	c**	1.6E+01	c*					6.1E-01	c*	4.0E+00	3.0E-04	c*	2.0E-03
				1.3E-02	I					1	0.1		Sodium Acifluorfen	62476-59-9	8.7E+01	n	1.1E+03	n					2.0E+01	n		2.1E-01	n	
				4.0E-03	I					1			Sodium Azide	26628-22-8	3.1E+01	n	4.7E+02	n					8.0E+00	n				
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025			Sodium Dichromate	10588-01-9	3.0E-01	c	6.2E+00	c	6.8E-05	c	8.2E-04	c	4.1E-02	c				
2.7E-01	H			3.0E-02	I					1	0.1		Sodium Diethyldithiocarbamate	148-18-5	2.0E+00	c*	8.5E+00	c					2.9E-01	c				
				5.0E-02	A	1.3E-02	C			1			Sodium Fluoride	7681-49-4	3.9E+02	n	5.8E+03	n	1.4E+00	n	5.7E+00	n	1.0E+02	n				
				2.0E-05	I					1	0.1		Sodium Fluoroacetate	62-74-8	1.6E-01	n	1.6E+00	n					4.0E-02	n		8.3E-06	n	
				1.0E-03	H					1			Sodium Metavanadate	13718-26-8	7.8E+00	n	1.2E+02	n					2.0E+00	n				
2.4E-02	H			3.0E-02	I					1	0.1		Stirofos (Tetrachlorovinphos)	961-11-5	2.3E+01	c**	9.6E+01	c*					2.8E+00	c*		6.1E-03	c*	
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025			Strontium Chromate	7789-06-2	3.0E-01	c	6.2E+00	c	6.8E-05	c	8.2E-04	c	4.1E-02	c				
				6.0E-01	I					1			Strontium, Stable	7440-24-6	4.7E+04	n	7.0E+05	n					1.2E+04	n		4.2E+02	n	
				3.0E-04	I					1	0.1		Strychnine	57-24-9	1.9E+00	n	2.5E+01	n					5.9E-01	n		8.8E-03	n	
				2.0E-01	I	1.0E+00	I	V		1		8.7E+02	Styrene	100-42-5	6.0E+03	ns	3.5E+04	ns	1.0E+03	n	4.4E+03	n	1.2E+03	n	1.0E+02	1.3E+00	n	1.1E-01
				3.0E-03	P					1	0.1		Styrene-Acrylonitrile (SAN) Trimer	NA	1.9E+01	n	2.5E+02	n					4.8E+00	n				
				1.0E-03	P	2.0E-03	X			1	0.1		Sulfolane	126-33-0	6.3E+00	n	8.2E+01	n	2.1E-01	n	8.8E-01	n	2.0E+00	n		4.4E-04	n	
				8.0E-04	P					1	0.1		Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	5.1E+00	n	6.6E+01	n					1.1E+00	n		4.5E-03	n	
						1.0E-03	C	V		1			Sulfur Trioxide	7446-11-9	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n	2.1E-01	n				
						1.0E-03	C			1			Sulfuric Acid	7664-93-9	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n						
				2.5E-02	I					1	0.1		Systhane	88671-89-0	1.6E+02	n	2.1E+03	n					4.5E+01	n		5.4E-02	n	
				3.0E-02	H					1	0.1		TCMTB	21564-17-0	1.9E+02	n	2.5E+03	n					4.8E+01	n		3.3E-01	n	
				7.0E-02	I					1	0.1		Tebuthiuron	34014-18-1	4.4E+02	n	5.7E+03	n					1.4E+02	n		3.6E-02	n	
				2.0E-02	H					1	0.1		Temephos	3383-96-8	1.3E+02	n	1.6E+03	n					4.0E+01	n		7.4E+00	n	
				1.3E-02	I					1	0.1		Terbacil	5902-51-2	8.2E+01	n	1.1E+03	n					2.5E+01	n		7.3E-03	n	
				2.5E-05	H			V		1		2.1E+01	Terbufos	13071-79-9	2.0E-01	n	2.8E+00	n					2.4E-02	n		9.3E-05	n	
				1.0E-03	I					1	0.1		Terbutryn	886-50-0	6.3E+00	n	8.2E+01	n					1.3E+00	n		1.6E-02	n	
				1.0E-04	I					1	0.1		Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	6.3E-01	n	8.2E+00	n					2.0E-01	n		5.2E-03	n	
				3.0E-04	I			V		1			Tetrachlorobenzene, 1,2,4,5-	95-94-3	2.3E+00	n	3.5E+01	n					1.7E-01	n		7.9E-04	n	
2.6E-02	I	7.4E-06	I	3.0E-02	I			V		1		6.8E+02	Tetrachloroethane, 1,1,1,2-	630-20-6	2.0E+00	c	8.8E+00	c	3.8E-01	c	1.7E+00	c	5.7E-01	c*		2.2E-04	c*	
2.0E-01	I	5.8E-05	C	2.0E-02	I			V		1		1.9E+03	Tetrachloroethane, 1,1,2,2-	79-34-5	6.0E-01	c	2.7E+00	c	4.8E-02	c	2.1E-01	c	7.6E-02	c		3.0E-05	c	
2.1E-03	I	2.6E-07	I	6.0E-03	I	4.0E-02	I	V		1		1.7E+02	Tetrachloroethylene	127-18-4	8.1E+00	n	3.9E+01	n	4.2E+00	n	1.8E+01	n	4.1E+00	n	5.0E+00	1.8E-03	n	2.3E-03
				3.0E-02	I					1	0.1		Tetrachlorophenol, 2,3,4,6-	58-90-2	1.9E+03	n	2.5E+04	n					2.4E+02	n		1.1E+00	n	
2.0E+01	H							V		1			Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	3.5E-02	c	1.6E-01	c					1.3E-03	c		4.4E-06	c	
				5.0E-04	I					1	0.1		Tetraethyl Dithiopyrophosphate	3689-24-5	3.2E+00	n	4.1E+01	n					7.1E-01	n		6.2E-04	n	
						8.0E+01	I	V		1		1.1E+03	Tetrafluoroethane, 1,1,1,2-	811-97-2	1.0E+05	ns	4.3E+05	ns	8.3E+04	n	3.5E+05	n	1.7E+05	n		5.7E+01	n	

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Toxicity and Chemical-specific Information																		Contaminant		Screening Levels												Protection of Ground Water SSLs			
RfC (mg/kg-day)[1]	c	RfD (1/(ug/m³))[1]	c	RfC (mg/m³)	c	v	c	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Residential Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Residential Air (ug/m³)	key	Industrial Air (ug/m³)	key	Tapwater (ug/L)	key	MCL (ug/L)	key	Leachate SSL (mg/kg)	key	Leachate MCL-based SSL (mg/kg)
			2.0E-03	P					1		6.000?	Trityl (Triphenylmethyl) chloride	476-15-9	1.6E+01	n	2.3E+02	n					3.6E+00	n			5.7E-02	n		
			7.0E-06	X					1			Thallium (I) Nitrate	10102-45-1	5.5E-02	n	8.2E-01	n					1.4E-02	n				n		
			1.0E-05	X					1			Thallium (Soluble Salts)	7440-28-0	7.8E-02	n	1.2E+00	n					2.0E-02	n	2.0E+00		4.9E-03	n	1.0E-01	
			8.0E-05	X			V		1		0.1	Thallium Acetate	563-68-8	3.8E-02	n	4.9E-01	n					1.2E-02	n				n		
			2.0E-05	X					1		0.1	Thallium Carbonate	6533-73-9	1.3E-01	n	1.6E+00	n					4.0E-02	n				n		
			8.0E-05	X					1			Thallium Chloride	7791-12-0	4.7E-02	n	6.1E-01	n					1.4E-02	n				n		
			2.0E-05	X					1			Thallium Sulfate	7446-18-6	1.6E-01	n	2.3E+00	n					4.0E-02	n				n		
			1.0E-02	I					1		0.1	Thiobencarb	28249-77-6	6.3E+01	n	8.2E+02	n					1.8E+01	n			5.9E-02	n		
			7.0E-01	X					1		0.0975	Thiodiglycol	111-48-8	5.4E+02	n	7.9E+03	n					1.4E+02	n			2.5E-02	n		
			3.0E-04	H					1		0.1	Thiofanox	39196-18-4	1.9E+00	n	2.5E+01	n					5.3E-01	n			1.8E-04	n		
			8.0E-02	I					1		0.1	Thiophanate, Methyl	23564-05-8	5.1E+02	n	6.6E+03	n					1.8E+02	n			1.4E-01	n		
			5.0E-01	I					1		0.1	Thiram	137-26-8	3.2E+01	n	4.1E+02	n					9.1E+00	n			7.8E-02	n		
			5.0E-01	H					1			Tin	7440-31-5	4.7E+03	n	7.0E+04	n					1.2E+03	n			3.4E+02	n		
					1.0E-04	A	V		1			Titanium Tetrachloride	7550-45-0	1.4E+04	n	8.0E+04	s	1.0E-02	n	4.4E-02	n	2.1E-02	n				n		
			8.0E-02	I	5.6E+00	I	v		1		0.02	Toluene	108-88-3	4.9E+02	n	6.3E+03	ns	5.2E+02	n	2.2E+03	n	1.1E+02	n	1.0E+03		7.0E-02	n	0.66+01	
1.1E-01	X		2.0E-04	X					1		0.1	Toluene-2,5-diamine	95-70-5	1.3E+00	n	1.3E+01	s**					4.0E-01	n			1.2E-05	n		
3.0E-02	P		4.0E-03	X					1		0.1	Toluidine, p-	106-49-0	1.6E+01	c**	7.7E+01	s**					2.5E+00	c**			1.1E-03	s**		
			3.0E+00	P			V		1		3.4E-01	Total Petroleum Hydrocarbons (Aliphatic High)	NA	2.5E+04	ns	3.5E+05	nns					8.0E+03	n			2.6E+07	s		
					6.0E-01	P	V		1		1.4E+02	Total Petroleum Hydrocarbons (Aliphatic Low)	NA	5.2E+01	n	2.2E+02	ns	6.3E+01	n	2.6E+02	n	1.3E+02	n			8.9E-01	n		
			1.0E-02	X	1.0E-01	P	V		1		6.8E+00	Total Petroleum Hydrocarbons (Aliphatic Medium)	NA	9.6E+00	ns	4.4E+01	ns	1.0E+01	n	4.4E+01	n	1.0E+01	n			1.5E+01	n		
			4.0E-02	P					1		0.1	Total Petroleum Hydrocarbons (Aromatic High)	NA	2.5E+02	n	3.3E+03	n					8.0E+01	n			8.8E+00	n		
			4.0E-03	P	3.0E-02	P	V		1		1.9E+03	Total Petroleum Hydrocarbons (Aromatic Low)	NA	6.2E+00	n	4.2E+01	n	3.1E+00	n	1.3E+01	n	3.3E+00	n			1.7E+00	n		
			4.0E-03	P	3.0E-02	P	V		1			Total Petroleum Hydrocarbons (Aromatic Medium)	NA	1.1E+01	n	8.0E+01	n	3.1E+00	n	1.3E+01	n	5.5E+01	n			2.3E+00	n		
1.1E+00	I	3.2E-04	I						1		0.1	Toxaphene	8001-35-2	4.4E+00	c	2.1E+00	c	9.8E-02	c	3.6E-02	c	1.3E+02	c	3.0E+00		2.9E+00	c	4.0E-01	
			7.5E-03	I					1		0.1	Tralomethrin	66841-25-6	4.7E+01	n	6.2E+02	n					1.5E+01	n			5.8E+00	n		
			3.0E-04	A			V		1			Tri-n-butyltin	688-73-3	1.9E+00	n	3.5E+01	n					3.7E+01	n			8.3E-01	n		
			8.0E+01	X					1		0.1	Tralocen	[illegible]	[illegible]	nns	9.8E+04	nns					[illegible]	n			[illegible]	s		
			1.3E-02	I			V		1			Sulfotep	[illegible]	1.0E+02	n	1.6E+03	n					1.2E+01	n			7.9E+02	s		
			1.0E-02	I					1		0.1	Temephos	[illegible]	6.3E+01	n	8.2E+02	n					2.0E+01	n			2.1E+02	n		
			8.0E-03	X			V		1			Tetrachloroethane, 1,1,1,2-	[illegible]	1.9E+01	n	3.4E+02	n					4.3E+00	n			6.4E-03	n		
9.0E-03	P		1.0E-02	P					1		0.1	Tetraethyl Pyrophosphate	107-49-3	6.0E+01	c**	2.6E+02	c**					5.1E+00	c**			2.0E-02	c**		
			3.0E-04	P					1		0.1	Tetraglycidyl Diaminodiphenylmethane (TGDDM)	[illegible]	1.9E+00	n	2.5E+01	n					6.0E-01	n				n		
			3.0E-04	I					1		0.1	Tetrahydrofuran	109-99-9	2.7E+01	n	3.5E+02	n					5.1E+01	n			2.3E+01	n		
			3.0E+01	I	3.0E-01	H	V		1		9.1E+02	Tetrahydro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	4.0E+03	ns	1.7E+04	ns	3.1E+03	n	1.3E+04	n	5.5E+03	n			1.4E+01	n		
7.0E-02	I		2.0E-02	I					1		0.1	Tetrahydrophthalic Acid	85-43-8	7.8E+00	c*	3.3E+01	c*					1.1E+00	c*	8.0E+01		2.2E-04	c*	1.3E-02	
2.3E-02	H								1		0.1	Tetrahydrophthalic Anhydride, 1,2,3,6-	1553-56-2	1.8E+01	c	7.7E+01	c					2.7E+00	c			7.4E-02	c		
7.0E-03	X		3.0E-05	X					1		0.1	Tetrahydrophthalimide, 3,4,5,6-	1004-83-5	1.8E-01	n	2.5E+00	n					4.0E-02	n			3.6E-04	n		
			8.0E-04	X			V		1			Tetralin (Tetrahydronaphthalene, 1,2,3,4-)	119-64-2	9.3E+00	n	8.2E+01	n					7.0E-01	n			2.1E-03	n		
2.0E-02	P		1.0E-02	I	2.0E-03	P	V		1		4.0E+02	Tetramethrin (ISO)	7696-12-0	5.6E+02	n	2.8E+01	n	2.1E+00	n	8.8E-01	n	4.0E-01	n	7.0E+01		1.2E+03	n	2.0E-01	
			2.0E+00	I	5.6E+00	I	V		1		6.4E+02	Tetrachloroethane, 1,1,1,2-	630-20-6	8.1E+02	ns	3.6E+03	ns	5.2E+00	n	2.2E+03	n	8.0E+02	n	3.9E+02		2.3E-01	n	7.6E-02	
6.7E-02	I	1.9E-05	I	4.0E-03	I	2.0E-04	X	V	1		2.2E+02	Tetrachloroethane, 1,1,2,2-	79-34-5	1.6E+00	n	8.3E-01	n	2.1E-02	n	8.8E-02	n	4.1E-02	n	5.0E+00		1.1E-03	n	1.0E-03	
4.0E-02	I	4.1E-06	I	8.0E-04	I	2.0E-05	I	V	M	1		Tetrachloroethene	127-18-4	2.1E+01	n	1.9E+00	n	2.1E-01	n	8.8E-01	n	3.9E-01	n	5.0E+00		1.0E-01	n	1.0E-03	
			3.0E-01	I	7.0E-01	H	V		1		1.2E+03	Tetrachloroethylene	75-69-4	7.3E+01	n	3.1E+02	n	7.3E+01	n	3.1E+02	n	1.1E+02	n			7.3E-02	n		
			1.0E-01	I					1		0.1	Tetrachlorophenol, 2,4,5-	95-95-4	8.2E+02	n	8.2E+03	n					1.2E+02	n			4.4E-04	n		
1.1E-02	I	3.1E-06	I	1.0E-05	P				1		0.1	Tetrachlorophenol, 2,3,4,6-	58-90-2	4.2E+00	n	8.2E+01	n	9.1E-0	c	4.0E+00	c	1.2E+00	n			2.6E-01	n		
			1.0E-02	I					1		0.1	Tetrachlorophenoxyacetic Acid, 2,4,5-	93-76-5	8.2E+01	n	8.2E+02	n					1.0E+01	n			6.7E-03	n		
			8.0E-03	I					1		0.1	Tetrachlorophenoxypropionic acid, 2,4,5-	93-72-1	3.1E+01	n	8.2E+02	n					1.1E+01	n	5.0E+01		6.1E-03	n	2.0E-03	
			2.0E-03	I			V		1		1.2E+03	Tetrachloropropane, 1,1,2,2-	630-20-6	3.1E+01	n	5.1E+02	n					6.8E+00	n			3.1E-03	n		
3.0E+01	I		4.0E-03	I	3.0E-04	I	V	M	1		1.4E+03	Trichloropropane, 1,2,3-	96-18-4	5.1E-03	c*	1.1E-01	c*	3.1E-02	n	1.3E-01	n	7.5E-04	c*			2.3E-07	c*		
			3.0E-03	X	3.0E-04	P	V		1		4.6E+02	Trichloropropane, 1,2,3-	96-18-4	7.3E-02	n	3.1E-01	n	3.1E-02	n	1.3E-01	n	8.3E-02	n			2.1E-05	n		
			2.0E-02	A					1		0.1	Tricresyl Phosphate (TCP)	1330-78-5	1.6E+02	n	1.6E+01	n					1.6E+01	n			1.5E+00	n		
			3.0E-03	I					1		0.1	Tridiphane	58138-08-2	1.9E+01	n	2.5E+02	n					1.8E+00	n			1.3E-02	n		
					7.0E-03	I	V		1		2.6E+04	Triethylamine	121-44-8	1.2E+01	n	4.8E+01	n	7.3E-01	n	3.1E+00	n	1.5E+00	n			4.4E-04	n		
			2.0E+00	P					1		0.1	Triethylene Glycol	112-27-6	1.3E+04	n	1.6E+05	nns					4.0E+03	n			8.6E-01	s*		
7.7E-03	I		7.5E-03	I			V		1			Trifluralin	1582-09-8	5.9E+01	n	4.2E+02	c**					2.5E+00	c**			8.3E-02	c**		
2.0E-02	P		1.0E-02	P					1		0.1	Trimethyl Phosphate	512-56-1	2.7E+01	c**	1.1E+02	s**					3.9E+00	c**			6.6E-04	s**		
					5.0E-05	P	V		1		2.8E+02	Trimethylbenzene, 1,2,3-	526-73-8	4.3E+00	n	5.1E+01	n	5.2E-0	n	2.2E+00	n	1.0E+00	n			1.5E-03	n		
					7.0E-03	P	V		1		2.5E+02	Trimethylbenzene, 1,2,4-	95-63-6	5.6E+00	n	2.4E+01	n	7.3E-01	n	3.1E+00	n	1.5E+00	n			2.1E-03	n		
			1.0E-02	X			V		1		1.9E+02	Trimethylbenzene, 1,3,5-	108-67-8	7.8E+01	n	1.2E+03	ns					1.3E+01	n			1.7E-03	n		
			3.0E-02	I					1		0.519	Trinitrobenzene, 1,3,5-	99-35-4	2.5E+02	n	3.2E+03	n					5.4E+01	n			2.1E-01	n		
3.0E-02	I		6.0E-04	I					1		0.002	Trinitrotoluene, 2,4,6-	118-96-7	3.4E+00	n	5.1E+01	n					9.6E-01	n			6.7E-03	n		
			2.0E-02	P					1		0.1	Triphenylphosphine Oxide	791-28-6	1.3E+02	n	1.6E+03	n					3.8E+01	n			1.1E-01	n		
			2.0E-02	A					1		0.1	Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8	1.3E+02	n	1.6E+03	n					3.8E+01	n			8.7E-01	n		
			1.1E-02	X					1		0.1	Tris(1-chloro-2-propyl)phosphate	13674-84-5	6.3E+01	n	8.2E+02	n					1.9E+01	n			6.8E-02	n		
2.3E+00	C	6.6E-04	C				V		1		4.7E+02	Tris(2,3-dibromopropyl)phosphate	126-72-7	2.6E-01	c	1.3E+00	s	4.3E-03	c	1.9E-02	c	6.6E-03	c			1.3E-04	s		

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Toxicity and Chemical-specific Information																Contaminant		Screening Levels												Protection of Ground Water SSLs			
SFO (mg/kg-day)$^{-1}$	cancer	IUR (ug/m^3)$^{-1}$	cancer	RfD$_o$ (mg/kg-day)	noncancer	RfC$_i$ (mg/m^3)	noncancer	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	key	SSL (mg/kg)	key	SSL (mg/kg)
2.0E-02	P			7.0E-03	P				1	0.1		Tris(2-chloroethyl)phosphate	115-96-8	2.7E+01	c**	1.1E+02	c**					3.8E+00	c**			3.9E-03	c**		
3.2E-03	P			1.0E-01	P				1	0.1		Tris(2-ethylhexyl)phosphate	78-42-2	1.7E+02	c**	7.3E+02	c**					2.4E+01	c**			1.2E-02	c**		
				3.0E-03	I	4.0E-05	A		1			Uranium (soluble salts)	n/a	2.7E+01	n	3.5E+02	n	4.2E-03	n	1.8E-02	n	3.0E+00	n	3.0E+01		2.3E+00	n	1.4E+01	
1.8E+00	C	2.8E-04	C					M	1	0.1		Uranium-234	13966-29-7	1.7E+01	c	2.3E+00	c	3.3E-03	c	4.2E-02	c	2.3E+01	c			1.0E-02	c		
		8.3E-03	P	9.0E-03	I	7.0E-06	P		0.029			Uranium-235	15117-96-1	8.8E+01	n	8.4E+02	n	3.4E-04	c**	1.5E-03	c**	1.5E+01	n				n		
				6.0E-03	S	1.0E-04	A		0.029			Uranium and Compounds	7440-61-1	1.0E+01	n	5.1E+02	n	1.0E-02	n	4.4E-02	n	8.0E+00	n			4.4E-02	n		
				1.0E-03	I			V	1			Vanadium	7440-62-2	7.8E+01	n	1.2E+02	n					1.1E+00	n			9.9E-01	n		
				2.5E-02	I				1	0.1		Vanadium Pentoxide	1314-62-1	1.0E+02	n	2.1E+03	n					4.4E+01	n			3.4E-02	n		
				1.0E+00	H	2.0E-01	I	V	1		2.6E+03	Vinyl Acetate	108-05-4	9.1E+01	n	3.9E+02	n	2.1E+01	n	8.8E+01	n	4.1E+01	n			6.7E-02	n		
		3.0E-06	H			3.0E-03	I	V	1		3.4E+04	Vinyl Bromide	593-60-2	1.1E+01	c**	3.2E+01	c**	8.8E-02	c**	3.8E-01	c**	1.8E+01	c**			5.1E-02	c**		
7.2E-01	I	4.4E-06	I	3.0E-03	I	1.0E-01	I	V	1		3.8E+03	Vinyl Chloride	75-01-4	5.9E-02	c	1.7E+00	c*	1.7E-01	c*	2.8E+00	c*	1.9E-02	c	2.0E+00		6.4E-03	c	6.5E-04	
				3.0E-04	I				1	0.1		Vinylcarbazole	81-48-2	1.8E+02	n	2.5E+01	n					5.0E-01	n			5.8E-01	n		
				2.0E-01	S	1.0E-01	S	V	1		3.8E+02	Xylene, p-	106-42-3	1.1E+01	n	2.4E+02	n	1.0E+01	n	4.4E+01	n	1.0E+01	n			1.3E-02	n		
		2.0E-01	S	1.0E-01	S	V	1		3.8E+02	Xylene, m-	108-38-3	5.6E+01	n	2.4E+02	n	1.0E+01	n	4.4E+01	n	1.0E+01	n			1.9E-01	n		
		2.0E-01	S	1.0E-01	S	V	1		4.2E+02	Xylene, o-	95-47-6	8.3E+01	n	2.6E+02	n	1.0E+01	n	4.4E+01	n	1.0E+01	n			1.9E-01	n		
		2.0E-01	I	1.0E-01	I	V	1		3.8E+02	Xylenes	1330-20-7	6.3E+01	n	2.6E+02	n	1.0E+01	n	4.4E+01	n	1.0E+01	n	1.0E+04		1.9E-01	n	6.9E+00	
		3.0E-04	I						1			Zinc Phosphide	1314-84-7	2.3E+02	n	3.5E+01	n					8.0E+01	n				n		
		3.0E-01	I						1			Zinc and Compounds	7440-66-6	2.3E+02	n	3.5E+04	n					6.0E+02	n			2.7E+01	n		
		6.0E-02	I						1	0.1		Zineb	12122-67-7	3.5E+02	n	4.1E+03	n					9.9E+01	n			2.8E-01	n		
		6.0E-06	X						1			Zirconium	7440-67-7	6.3E+01	n	9.3E+00	n					1.0E+01	n			4.6E+01	n		

Pinyon

Appendix B EPA Toxicity Characteristic Maximum Concentration of Contaminants

Toxicity Characteristic - Maximum Concentration of Contaminants
(Determine Levels using TCLP, Test Method 1311, EPA SW-846)
40CFR 261.24

USEPA Hazardous Waste Number	Constituent	CAS Number	Regulatory Level (mg/l)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018 vol	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019 vol	Carbon Tetrachloride	56-23-5	0.5
D020 pest	Chlordane	57-74-9	0.03
D021 vol	Chlorobenzene	108-90-7	100.0
D022 vol	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023 semivol	o-Cresol	95-48-7	200.0*
D024 semivol	m-Cresol	108-39-4	200.0*
D025 semivol	p-Cresol	106-44-5	200.0*
D026 semivol	Cresol	- - - - - - -	200.0*
D016 herbicide	2,4-D	94-75-7	10.0
D027 vol	1,4-Dichlorobenzene	106-46-7	7.5
D028 vol	1,2-Dichloroethane	107-06-2	0.5
D029 vol	1,1-Dichloroethylene	75-35-4	0.7
D030 semivol	2,4-Dinitrotoluene	121-14-2	0.13
D012 pest	Endrin	72-20-8	0.02
D031 pest	Heptachlor, and its epoxide	76-44-8	0.008
D032 semivol	Hexachlorobenzene	118-74-1	0.13
D033 semivol	Hexachloro-1,3-butadiene	87-68-3	0.5
D034 semivol	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013 pest	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014 pest	Methoxychlor	72-43-5	10.0
D035 vol	Methyl Ethyl Ketone (MEK) (2-Butanone)	78-93-3	200.0
D036 semivol	Nitrobenzene	98-95-3	2.0
D037 semivol	Pentachlorophenol	87-86-5	100.0
D038 semivol	Pyridine	110-86-1	5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039 vol	Tetrachloroethylene	127-18-4	0.7
D015 pest	Toxaphene	8001-35-2	0.5
D040 vol	Trichloroethylene	79-01-6	0.5
D041 semivol	2,4,5-Trichlorophenol	95-95-4	400.
D042 semivol	2,4,6-Trichlorophenol	88-06-2	2.0
D017 herbicide	2,4,5-TP (Silvex)	93-72-1	1.0
D043 vol	Vinyl Chloride	75-01-4	0.2

* If the o-, m-, and /or p-Cresol concentrations cannot be differentiated, then the total cresol (D026) concentration (200 ppm) is used.
Compounds presented in blue are the RCRA eight priority metals
Vol – Volatile organic compound
Semivol - Semi volatile organic compound
Pest - Pesticide

Exhibit 2

(Attach Proposed Form of Lease Agreement for 320 North Cleveland Avenue)

Exhibit 2 to Disposition and Redevelopment Agreement – Lease Agreement

LEASE AGREEMENT

This Lease Agreement ("Lease") is entered into this ___ day of _____, 2017, by and between the **City of Loveland**, a Colorado municipal corporation ("City"), **The Foundry Theater, LLC**, a Colorado limited liability company ("Tenant") and **The Foundry Loveland, LLC**, a Colorado limited liability company ("TFL"). The City and Tenant are individually referred to as a "Party" and collectively as the "Parties."

RECITALS

Whereas, the City is the owner of that certain real property legally described as Lot 1, Morgan Subdivision, City of Loveland, County of Larimer, State of Colorado, also known by the mailing address of 320 North Cleveland, Loveland, Colorado 80537 ("Property"); and

Whereas, the building structure (individually the "Building" and together with the Property, the "Premises") located on the Property is owned by the City; and

Whereas, City and Tenant's parent company, TFL, are parties to that certain Disposition and Redevelopment Agreement ("DRA") dated on or about December 13, 2016, pursuant to which the City and TFL agreed upon the scope and nature of the redevelopment of certain real property located in the City generally between East 1st Street and East 4th Street, and between North Cleveland Avenue and North Lincoln Avenue ("Project"); and

Whereas, the Project includes a component which will consist of an approximately 625 seat, first run movie theater ("Movie Theater"), which the City believes will contribute to the Public Purpose (as defined in the DRA); and

Whereas, the projected lease revenue from the Movie Theater is not sufficient to meet Tenant's required rate of return for the component of the Project consisting of the Movie Theater, and as such, pursuant to Section 17.2 of the DRA, the City is obligated to enter into an agreement related to the Property and the Building (collectively, the "Premises") and to remit revenues generated by the Premises to TFL for a designated period of time as an additional incentive for TFL, as it relates to the Movie Theater; and

Whereas, the Parties agree that a long-term lease of the Premises to Tenant at a nominal rate is the most efficient and effective manner of complying with Section 17.2 of the DRA whereby Tenant will lease the Premises from the City, and retain any and all proceeds derived from its use or occupancy of the Premises, including any rental income generated from subleasing the Premises; and

Whereas, TFL would not otherwise enter into the DRA and agree to perform its obligations under the DRA, without the City entering into this Lease.

Now, therefore, in consideration of the mutual covenants and agreements contained herein, the Parties agree as follows:

1. **Term.** This Lease shall have a primary term of ten (10) years commencing on April 26, 2017, unless sooner terminated by operation or law or in accordance with this Lease. Provided that Tenant is not in default under the terms herein, this Lease may be renewed by Tenant, for two (2) additional periods of five (5) years each, provided that Tenant provides written notice of its election to exercise its option at least ninety (90) days prior to the expiration of the then existing Lease term or extension thereof.

2. **Premises.** The premises to be leased shall consist of the Property and the Building.

3. **Use of Premises.** Tenant shall be permitted to use and occupy the Premises; provided, however, that such use and occupation is consistent with (i) the covenants and easements and all other matters of record as of the date of this Lease, and (ii) all present and future laws, ordinances and regulations, including environmental regulations, of any governmental authority having jurisdiction over the Premises. Tenant shall not permit any nuisance to be maintained on the Premises or permit any disorderly conduct, common noise, or other activity having a tendency to annoy or disturb any adjoining property.

4. **Fulfillment of DRA.** This Lease fulfills the City's obligation to TFL under Section 17.2 of DRA regardless of the amount of revenue generated, if any, from the Premises. The Net Proceeds (defined below) received by Tenant pursuant to this Lease shall be considered Movie Theater revenue for purposes of calculating the Movie Theater revenue under Section 17 of the DRA. Notwithstanding the foregoing, the Net Proceeds shall not be a credit towards or constitute an offset from the City's separate obligation to provide a $2,189,944 cash incentive for the Movie Theater as set forth in Section 17 of the DRA ("Movie Theater Incentive"). For purposes of the Lease, the term "Net Proceeds" is defined as: all rents, revenue, income, issues, royalties, bonuses, profits and proceeds from the Premises, net of reasonable and customary expenses passed through to a sub-tenant under such leases including real property taxes, insurance premiums and operating expenses. Nothing contained herein shall constitute an affirmative obligation for Tenant to re-lease the Premises or to receive a certain level of Net Proceeds from the operation of the Premises.

5. **Rent and Deposit.** In consideration for the right to use and occupy the Premises as permitted herein, Tenant shall pay to the City **Ten Dollars ($10.00)** for the entire Lease term ("Rent"). City acknowledges receipt of Rent for the initial Lease term. Tenant shall not be charged a rental deposit for the Premises.

6. **Utilities.** Tenant shall be responsible for the timely payment of charges for water, wastewater, electric, trash, recycling, gas, internet, telephone and any other utility services servicing the Premises.

7. **Alterations.** Subject to the City's prior written approval, which shall not be unreasonably withheld, conditioned or delayed, Tenant may, during the term of this Lease, at Tenant's expense, install temporary or permanent demising walls to create or separate offices, erect inside partitions, add to existing electric power service, add telephone outlets, add light fixtures,

install additional heating and/or air conditioning or make such other changes or alterations as Tenant may desire. At the end of this Lease, all such fixtures, equipment, additions and/or alterations (except trade fixtures installed by Tenant) shall be and remain the property of the City; provided, however, the City shall have the option to require Tenant to remove any or all such fixtures, equipment, additions, and/or alterations and restore the Premises to the condition existing immediately prior to such change and/or installation, normal wear and tear excepted, at Tenant's sole cost and expense. All such work shall be done in a good and workmanlike manner and shall consist of new materials unless agreed to otherwise by the City. Any and all repairs, changes and/or modifications thereto shall be the responsibility and at the expense of Tenant and shall conform to all current building codes and requirements of the City of Loveland. To the extent City does not respond to Tenant's request to make alterations as set forth herein, within thirty (30) days of Tenant's request, the City shall be deemed to have approved such request.

8. **Right to Inspect Premises.** The City shall have the right at all reasonable times to enter the Premises for any and all purposes not inconsistent with this Lease, provided such action does not unreasonably interfere with Tenant's use, occupancy, or security requirements of the Premises. Except when necessary for reasons of public safety or law enforcement, or for the protection of property as determined by the City, the City shall provide twenty-four (24) hours' prior written notice of its intent to inspect the Premises.

9. **Maintenance and Repair of the Building.**

a. The City shall keep and maintain the structural components of the Premises, including, without limitation, the roof, foundation, fire protection sprinkling systems, parking lots, walkways surrounding the Premises, and structural soundness of the exterior walls ("Structural Components") in good condition and repair. However, Tenant shall reimburse the City for costs associated with the maintenance and repair of the Structural Components due to damage caused by Tenant, its employees, or agents, normal wear and tear excepted. Invoices for any such maintenance or repair shall be paid by Tenant within thirty (30) days of invoice. In addition, the City shall be responsible for the replacement of plumbing, heating, air conditioning, and/or electric systems past their useful lives.

b. Subject to Landlord's obligations under subsection (a) above, Tenant, at its own cost, shall be responsible for maintaining the Premises in a neat and clean condition including, without limitation, regular removal of trash, painting of interior walls, replacement of light fixtures and ceiling tiles, plumbing, heating, air conditioning, and electric systems, in good condition and repair at Tenant's cost and expense. Tenant shall not allow any accumulation of trash or debris on the Premises. All receiving and delivery of goods and merchandise and all of the removal of garbage and refuse shall be made in a manner satisfactory to the City. No storage of any material outside of the Building shall be allowed. All window glass and doors in the Building shall be the responsibility of Tenant and any replacement or repair shall be promptly completed at the expense of Tenant.

10. **Maintenance of Property.** Tenant shall be responsible for maintaining the landscaping located on the Property. Tenant shall also be responsible for removing any snow that accumulates on any parking lot and on the sidewalks located on the Property.

11. **No Discrimination.** Tenant shall not discriminate on any grounds prohibited under federal or state law, including without limitation, race, color, disability, or national origin, in the use or occupancy of the Premises.

12. **Taxes. Real Property Taxes and Assessments.**

a. Real Property Taxes and Assessments. City shall pay promptly when due all real estate taxes and general assessments, if any, for the Premises that would be otherwise due if the occupancy and use of the Premises were for governmental public purposes. Tenant shall pay promptly when due all real estate taxes and general assessments, if any, for the Premises that are a result of Tenant's occupancy and use of the Premises. Tenant shall pay all special assessments, if any, for the Premises that are a result of Tenant's occupancy of use of the Premises. City shall promptly pay when due all other special assessments.

b. Personal Property Taxes. Tenant shall be responsible for, and shall pay promptly when due, any and all taxes and assessments levied or assessed against any furniture, fixtures, equipment and items of a similar nature that Tenant installs or locates in or about the Premises.

13. **Insurance.**

a. City. For the duration of the Lease, City shall procure and maintain a fire and casualty insurance policy for the Premises, in an amount equal or greater to the full replacement value of the Premises.

b. Tenant. For the duration of this Lease, Tenant shall procure and keep in force a policy of comprehensive general liability insurance insuring Tenant and naming the City as an additional insured with minimum combined single limits of One Million Dollars ($1,000,000.00) each occurrence and Two Million Dollars ($2,000,000.00) aggregate. The general liability policy shall include coverage for bodily injury, broad form property damage, personal injury (including coverage for contractual and employee acts), and blanket contractual, independent contractors, products and completed operations. The general liability policy shall contain a minimum limit of Three Hundred Thousand Dollars ($300,000.00) for property damage liability coverage for the Premises which limit may be increased by the City, in the exercise of its reasonable discretion, based upon any use that increases the risk or potential scope of damage to the Premises. The general liability policy shall contain a severability of interests provision. The general liability policy shall be for the mutual and joint benefit and protection of Tenant and the City and shall provide that the City, although named as an additional insured, shall nevertheless be entitled to recover under said policy for any loss occasioned to the City, its officers, employees, and agents

by reason of negligence of Tenant, its officers, employees, agents, subcontractors, or business invitees. The general liability policy shall be written as a primary policy not contributing to and not in excess of coverage the City may carry.

c. Tenant shall procure and keep in force a policy of renter's insurance for all improvements, fixtures, and equipment, which are not part of the Premises but are required for access to, or use and enjoyment of the Premises, against loss or damage by fire or theft.

d. Policies required herein shall be with companies qualified to do business in Colorado with a general policyholder's financial rating reasonably acceptable to the City. Said policies shall not be cancelable or subject to reduction in coverage limits or other modification except after thirty (30) days' prior written notice to the City. Tenant shall identify whether the type of coverage is "occurrence" or "claims made." If the type of coverage is "claims made," which at renewal Tenant changes to "occurrence," Tenant shall carry a one-year tail.

e. Certificates of insurance shall be completed by the Tenant's and/or sub-lessee's insurance agent as evidence that the policies providing the required coverages, conditions and minimum limits are in full force and effect, and shall be subject to review and approval by the City.

f. The City and Tenant hereby grant to each other, on behalf of any insurer providing fire and extended coverage to either of them covering the Premises, Building, Property or other improvements thereon or contents thereof, a waiver of any right of subrogation any such insurer of one Party may acquire against the other or as against City or Tenant by virtue of payment of any loss under such insurance. Such a waiver shall be effective so long as City and Tenant are empowered to grant such waiver under the terms of their respective insurance policy or policies, and such waiver shall stand mutually terminated as of the date either City or Tenant gives notice to the other that the power to grant such waiver has been so terminated.

g. Tenant may procure and keep in force a policy of Business Income/Extra Expense coverage for any expenses that Tenant may incur in the event the Building, is uninhabitable or otherwise not useable for Tenant' s purposes, in whole or in part, while this Lease remains in effect. In addition to any other limitation on City liability set forth in this Lease, the City shall not be liable for any expenses incurred by Tenant that would otherwise be covered by such coverage.

14. **Indemnity.** Tenant shall assume the risk of all personal injuries, including death resulting therefrom, to persons and damage to or destruction of property, including loss of use therefrom, caused by or sustained, in whole or in part, in connection with or arising out of the acts or omissions of Tenant, its employees, agents, servants, subcontractors, or authorized volunteers, or by the conditions created thereby. Tenant shall indemnify and hold harmless the City, its officers, agents, and employees from and against any and all claims, liabilities, costs, expenses, penalties, attorney's fees, and defense costs arising from such injuries to persons or damages to property based upon or arising (i) out of the acts or omissions of Tenant, its employees, agents,

servants, subcontractors, or authorized volunteers, or (ii) out of any violation by Tenant, its employees, agents, servants, subcontractors, or authorized volunteers of any law, regulation, or ordinance. Tenant shall investigate, handle, respond to, and defend against any such liability, claims, and demands related thereto and shall bear all other related costs and expenses, including court costs and attorneys' fees. Tenant's indemnification obligation shall not extend to any injury, loss, or damage to the extent caused by the act, omission, or other fault of the City. This paragraph shall survive the termination or expiration of this Lease.

15. **Governmental Immunity.** Notwithstanding any other provision of this Lease to the contrary, no term or condition of this Lease shall be construed or interpreted as a waiver, express or implied, of any of the notices, requirements, immunities, rights, benefits, protections, limitations of liability, and other provisions of the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 *et seq.* ("Act") and under any other applicable law. The Parties understand and agree that liability for claims for injuries to persons or property arising out of the negligence of the City, its departments, commissions, boards, officials, and employees is controlled and limited by the provisions of the Act, as now or hereafter amended.

16. **Sublease and Assignment.** Tenant may assign all or any part of this Lease or sublease all or any part of the Premises to any other person or entity, without City's prior approval. In the event Tenant enters into a sublease for all or any part of the Premises, Tenant shall cause each sub-lessee to maintain the minimum insurance coverages listed above in Section 13.a through 13.e. Tenant shall promptly notify the City in writing of any such sublease.

17. **Holding Over.** Any holding over after the expiration of the term of this Lease or any extended term thereof, with the consent of the City, shall be construed to be a tenancy from month-to-month on the same terms and conditions provided for herein; except that the monthly rental rate shall be adjusted to reflect the then-current market rate. No holding over by Tenant shall operate to renew or extend this Lease without the written consent of the City to such renewal or extension having been first obtained.

18. **Total or Partial Destruction.** If during the term of this Lease the Building or any part thereof is destroyed or is so damaged by fire or other casualty so as to become uninhabitable, as determined by the City, then the City (unless the same is caused by Tenant's negligence and is not otherwise covered by insurance) shall repair the Building, at its own cost, with all reasonable speed, placing the same in as good a condition as it was at the time of the destruction or damage and for that purpose may enter upon the Premises. If the Building is only slightly damaged by fire or the elements so as to not render the same uninhabitable and unfit for occupancy, then the City shall repair the same as soon as practicable.

19. **Condemnation Taking.** If the entire Premises is taken for quasi-public purposes by any governmental entity or other entity having the power of condemnation, or sold by City under the threat of the exercise of said power, this Lease shall terminate as of the date that legal title to the Premises vests in the condemning authority or the date such authority takes possession of the Premises, whichever is earlier. If only a portion of the Premises is so taken, Tenant may either terminate this Lease as of the date title or possession is transferred as set forth above, whichever is earlier, or continue this Lease in effect. In the event of a total or partial taking, the

City shall be required to provide a replacement property reasonably acceptable to Tenant, for Tenant to lease from the City under substantially the same terms and conditions set forth in this Lease, that will provide the Tenant with replacement rental income in the amount substantially equal to the trailing twelve (12) month average for Net Proceeds or liquidated damages in the amount equal to the trailing twelve (12) month average for Net Proceeds multiplied by the remaining Term of the Lease including extensions thereof. Such obligation is subject to annual appropriation, provided however, any such submission to City Council will require an explanation to City Council as to the intent and purpose of this Lease as described in the above recitals. If the Lease is not terminated, then City agrees, at City's sole cost, to restore the Premises as soon as reasonable possible to a complete unit of like quality, character and utility for Tenant's purposes as existed prior to condemnation.

In either a total or partial condemnation, City shall have the exclusive right to any award made by the condemning authority except that the Tenant shall be entitled to claim from the condemning authority all damages for loss of business, damage to or loss of its fixtures and equipment, furniture and personal property, and the costs of removal, moving and reinstallation of any of the same, as well as the value of any leasehold improvements or Tenant's alterations to the Premises.

20. **Default**. Each of the following shall constitute a default under this Lease.

a. Action or inaction by the City that materially affects Tenant's ability to generate revenue from the Premises in an amount substantially equal to the trailing twelve (12) month average for Net Proceeds; provided, however, that a failure to obtain City approvals for any change in zoning or use from the current zoning or use shall not qualify as a default; or
b. Occurrence of an Event of Default (as defined in the DRA) under the DRA, and past any applicable cure period; or
c. Failure to perform according to the provisions of this Lease.

21. **Termination for Default**. In the event of a default as set forth in Section 20 above, the defaulting Party may cure said default within thirty (30) days of written notice thereof by the non-defaulting Party, or if such default is of such a nature that it cannot be cured by diligent effort during such thirty (30) day period, such Party may cure its default by undertaking a course of performance within such grace period and diligently pursuing it thereafter. Otherwise, the non-defaulting Party may terminate this Lease immediately upon written notice of termination to the defaulting Party. In the event of default by Tenant and failure to cure such default by the specified date after notice as provided for herein, Tenant's right to possess the Premises shall cease, this Lease shall be terminated, and the Parties shall have no further rights, duties or obligations hereunder, except for those obligations which are expressly stated to survive termination. The City may then re-enter and take possession of the Premises or any part thereof, repossess the same, expel Tenant and those claiming through or under Tenant, and remove the effects of both or either (forcibly, if necessary) without being deemed guilty of any manner of trespass. In the event of default by City and failure to cure such default by the specified date after notice as provided for herein, Tenant at its election may choose from the following remedies: (i) be entitled to liquidated damages from City in the amount equal to the trailing twelve (12) month

average for Net Proceeds multiplied by the remaining Term of the Lease including extensions thereof;or (ii) require the City to provide a replacement property reasonably acceptable to Tenant, for Tenant to lease from the City under substantially the same terms and conditions set forth in this Lease, that will provide Tenant with replacement rental income in the amount substantially equal to the trailing twelve (12) month average for Net Proceeds. Such obligation is subject to annual appropriation, provided however, any such submission to City Council will require an explanation to City Council as to the intent and purpose of this Lease as described in the above recitals. It is agreed that the amount set forth in subsection (i) above is liquidated damages, and not a penalty, which amount the Parties agree is fair and reasonable and is a good faith estimate of what Tenant's monetary damages would have been, but for City's breach.

22. **Notices**. Written notices shall be directed as follows and shall be deemed received when hand-delivered or emailed, or three (3) days after being sent by certified mail, return receipt requested:

To the City:
City of Loveland
Attn: Stephen C. Adams
500 E. Third Street, Suite 330
Loveland, CO 80537
(970) 962-2306
steve.adams@cityofloveland.org

To The Foundry:
The Foundry Loveland, LLC
Attn: Kevin Brinkman
3528 Precision Drive, Suite 100
Fort Collins, CO 80528
970.672.1020
kevin.brinkman@brinkmanpartners.com

23. **Right of First Refusal**. Subject to approval by City Council, Tenant shall have a first right of refusal to purchase the Premises, on the condition that Tenant, at its own expense, acquires the real property adjacent to the Premises for the purposes of redevelopment of such real property as a new and additional phase of The Foundry project as such project is identified in the DRA.

24. **Time of the Essence**. It is agreed that time shall be of the essence of this Lease and each and every provision hereof.

25. **Parties Bound**. This Lease shall be binding upon, and inure to the benefit of, the City and Tenant and their respective heirs, executors, administrators, legal representatives, and/or successors.

26. **Governing Law and Venue**. This Lease shall be governed by the laws of the State of Colorado. In addition, the Parties acknowledge that there are legal constraints imposed upon the City by the constitutions, statutes, and rules and regulations of the State of Colorado and of the United States and imposed upon the City by its Charter and Code, and that, subject to such constraints, the Parties intent to carry out the terms and conditions of this Lease. Notwithstanding any other provision of this Lease to the contrary, in no event shall either of the Parties be required to exercise any power or take any action which shall be prohibited by applicable law. Whenever possible, each provision of this Lease shall be interpreted in such a manner so as to be effective

and valid under applicable law. Venue for any judicial proceeding concerning this Lease shall be exclusively in the District Court for Larimer County, Colorado.

27. **Legal Construction**. In case any one or more of the provisions contained in this Lease shall for any reason be held by a court of competent jurisdiction to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Lease, and this Lease shall be constructed as if the invalid, illegal, or unenforceable provision had never been included in the Lease. Paragraph headings used in this Lease are for convenience of reference only and shall in no way define, control or affect the meaning or interpretation of any provision of this Lease.

28. **Relationship of Parties**. This Lease should not be construed to create an agency or employee relationship between the City and Tenant. Tenant shall exercise no supervision over any employee or official of the City and shall not represent that Tenant is an employee or agent of the City in any capacity. No employee or contractor of Tenant has any right to Worker's Compensation benefits from the City or its insurance carriers or funds. Tenant shall provide any workers' compensation insurance and all other insurance required by any applicable law for its employees.

29. **Beneficiaries**. This Lease is for the sole benefit of and binds the City and the Tenant, their successors and assigns. This Lease affords no claim, benefit, or right of action to any third party. Any party besides the City or Tenant receiving services or benefits under this Lease is only an incidental beneficiary.

30. **Financial Obligations of the City of Loveland**. Any financial obligation of the City under this Lease is contingent upon appropriation, budgeting and availability of specific funds to discharge those obligations. Nothing in this Lease constitutes a debt, a direct or indirect multiple fiscal year financial obligation, a pledge of the City's credit, or a payment guarantee by the City to Tenant.

31. **Amendment**. This Lease may only be altered or amended in writing, signed by duly authorized representatives of the City and Tenant, respectively.

32. **Mutual Cooperation**. The Parties each agree to use good faith efforts to cause satisfaction of all conditions to its obligations under this Lease, and to exercise good faith in fulfilling its obligations under this Lease and in cooperating with the other Party with respect to that Party's satisfaction and fulfillment of all that Party's conditions and obligations under this Lease.

33. **Operations Covenant.** Upon the Movie Theater opening for business to the public, in the event a movie theater is not operating on such real property for a period of more than twelve (12) consecutive months and Tenant has not secured a replacement tenant and/or use acceptable to the City, except in the event of damage or destruction and such Movie Theater has commenced reconstruction within such period of time, City, at its election, may require Tenant to assign back its interest in the Lease to City subject to existing sub-leases, and upon such assignment, the Parties shall be relieved of all further rights duties or obligations hereunder.

This Lease is hereby entered into by the Parties the day and year first above written.

[*Signature Pages to Follow*]

CITY:

City of Loveland, Colorado

By: _____
Stephen C. Adams, City Manager

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
Assistant City Attorney

TENANT:

The Foundry Theater, LLC,
a Colorado limited liability company

By: The Foundry Loveland, LLC, a Colorado limited liability company, its Member

By: GP Foundry, LLC, a Colorado limited liability company, its Manager

By: Brinkman Entity Management, LLC, a Colorado limited liability company, its Manager

By: _____
Kevin Brinkman, Manager

By: BBCP – GP Foundry, LLC, a Colorado limited liability company, its Manager

By: _____
Chad A. Brue, Manager

The Foundry Loveland, LLC, a Colorado limited liability company, hereby consents to and agrees to be bound by Section 4 hereof.

The Foundry Loveland, LLC,
a Colorado limited liability company

By: GP Foundry, LLC, a Colorado limited liability company, its Manager

By: Brinkman Entity Management, LLC,
a Colorado limited liability company,
its Manager

By: _____
Kevin Brinkman, Manager

By: BBCP – GP Foundry, LLC,
a Colorado limited liability company,
its Manager

By: _____
Chad A. Brue, Manager

EXHIBIT D
2017 ELECTION NOTICE AND CERTIFIED RESULTS

ALL REGISTERED VOTERS

NOTICE OF ELECTION TO INCREASE DEBT

Election Date: November 7, 2017
Election Hours: 7:00 a.m. - 7:00 p.m.

Local Election Office: City Clerk's Office
500 E. 3rd St., Ste. 230
Loveland, CO 80537
(970) 962-2000

CITY OF LOVELAND
REFERRED BALLOT ISSUE 5C
CITY- INITIATED MEASURES TO AUTHORIZE
THE ISSUANCE OF BONDS FOR
DOWNTOWN DEVELOPMENT AUTHORITY PROJECTS

Ballot Title and Text:

Ballot Issue 5C
SHALL CITY OF LOVELAND DEBT BE INCREASED BY UP TO $61,000,000, WITH A REPAYMENT COST OF NO MORE THAN $135,000,000, WITHOUT RAISING TAXES, FOR THE PURPOSE OF FINANCING THE COSTS OF DEVELOPMENT PROJECTS TO BE UNDERTAKEN BY OR ON BEHALF OF THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PURSUANT TO THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PLAN OF DEVELOPMENT, WITH SUCH DEBT PAYABLE FROM AND SECURED BY A PLEDGE OF THE SPECIAL FUND OF THE CITY WHICH SHALL CONTAIN TAX INCREMENT REVENUES LEVIED AND COLLECTED WITHIN THE BOUNDARIES OF THE AUTHORITY.

WITHOUT RAISING TAXES, SHALL CITY OF LOVELAND DEBT BE INCREASED BY UP TO $61,000,000, WITH A REPAYMENT COST OF NO MORE THAN $135,000,000, FOR THE PURPOSE OF FINANCING THE COSTS OF DEVELOPMENT PROJECTS TO BE UNDERTAKEN BY OR ON BEHALF OF THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PURSUANT TO THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PLAN OF DEVELOPMENT, AS IT MAY BE AMENDED FROM TIME TO TIME, INCLUDING WITHOUT LIMITATION, PARKING, UTILITIES, STREETS, SIDEWALKS, ALLEYWAYS AND BEAUTIFICATION, AND APPLICABLE PROVISIONS OF COLORADO LAW; SUCH DEBT AND THE INTEREST THEREON TO BE PAYABLE FROM AND SECURED BY A PLEDGE OF THE SPECIAL FUND OF THE CITY WHICH SHALL CONTAIN TAX INCREMENT REVENUES LEVIED AND COLLECTED WITHIN THE BOUNDARIES OF THE AUTHORITY; AND SHALL SUCH DEBT BE EVIDENCED BY BONDS, NOTES, CONTRACTS OR OTHER FINANCIAL OBLIGATIONS TO BE SOLD IN ONE SERIES OR MORE FOR A PRICE ABOVE OR BELOW THE PRINCIPAL AMOUNT THEREOF, ON TERMS AND CONDITIONS, AND WITH SUCH MATURITIES AS PERMITTED BY LAW AND AS THE CITY MAY DETERMINE, INCLUDING PROVISIONS FOR REDEMPTION OF THE DEBT PRIOR TO MATURITY WITH OR WITHOUT PAYMENT OF THE PREMIUM OF NOT MORE THAN 3% OF THE PRINCIPAL AMOUNT SO REDEEMED; AND SHALL THE CITY AND THE AUTHORITY BE AUTHORIZED TO COLLECT, RETAIN AND SPEND THE TAX INCREMENT REVENUES, THE BOND PROCEEDS AND INVESTMENT INCOME THEREON AS A VOTER-APPROVED REVENUE CHANGE, AND EXCEPTION TO THE LIMITS WHICH WOULD OTHERWISE APPLY UNDER ARTICLE X, SECTION 20 OF THE COLORADO CONSTITUTION OR ANY OTHER LAW?

Total City Fiscal Year Spending:

Fiscal Year	
2017 (estimated)	$ 86,605,197
2016 (actual)	$ 86,267,675
2015 (actual)	$ 94,792,684
2014 (actual)	$ 93,133,319
2013 (actual)	$ 82,281,166

Overall percentage change from 2013 through 2017	5.3%
Overall dollar change from 2013 through 2017	$ 4,324,031

Information on City's Proposed Debt

BALLOT ISSUE 5C:

Principal Amount of Proposed Bonds:	Not to exceed $ 61,000,000
Maximum Annual City Repayment Cost:	Not to exceed $135,000,000
Total City Repayment Cost:	Not to exceed $135,000,000

Information on City's Current Debt*

Principal Amount Outstanding Debt:	$4,480,000
Maximum Annual Repayment Cost:	$5,039,598
Remaining Total Repayment Cost:	$5,297,850

*Excluded from debt are enterprise and annual appropriation obligations.

Summaries of written comments filed with the election officer:

Summary of Written Comments FOR Ballot Issue 5C:

The vote to approve the creation of Loveland's Downtown Development Authority, (DDA), was passed in 2015 by businesses, property owners and residents in the downtown area to address deteriorating property values, structures and infrastructure within the central business district and assist in downtown redevelopment efforts. The DDA serves the downtown community by managing and supporting the ongoing revitalization efforts.

This year 5C authorizes Loveland to incur debt for use on approved development and redevelopment projects. The DDA has worked with both City Council and the Planning Commission to adopt a Plan of Development, which includes projects for downtown that address the critical need for more parking, lighting and infrastructure.

Loveland has been making strides toward downtown revitalization. With the creation of the Downtown Development Authority and the Loveland Downtown Partnership, we are starting to see improvements like updated storefronts, new businesses, better lighting and additional parking. There is an exciting energy from those working, living, and visiting downtown. This will ensure the necessary funding for critical things like additional parking, street and sidewalk improvements, safety advancement and updated public utilities.

Passing 5C will mean we are investing in the future of downtown and creating a strong, functioning DDA with the necessary financing mechanisms to accomplish the long term vision. Loveland's DDA is as much about the economic reengineering of public spaces as it is about preserving a strong sense of community. Downtown is the heart and soul of Loveland, and 5C supports the critical funding initiatives needed to ensure it continues to thrive.

By supporting 5C, we, as downtown businesses, property owners, and residents are ensuring that we are investing in downtown and creating the funding needed to ensure our downtown continues to thrive for years to come. 5C supports an economically successful, vibrant and inviting downtown.

Summary of Written Comments AGAINST Ballot Issue 5C:

This ballot issue seeks voter approval for a $61 million revolving line of credit for the City to be used by the City's Downtown Development Authority (DDA) to give subsidies to privately owned, commercial businesses in the downtown area. All of Loveland's residents (and others, too) are being committed to keeping this line of credit available for the next thirty years, and it can be continued for another twenty years without further voter approval.

The money to pay each subsidy is borrowed from the line of credit. Interest of approximately 6% per year is charged on the outstanding balance. The diverted excess sales tax collection on new properties is used to pay the debt. Meanwhile, the diverted property taxes are not just those paid to the City, but to the County, ambulance district, mosquito-control district, water district, and above all the School District.

The ballot language deceptively says that payments on this line of credit will be "without raising taxes". It can't help but raise taxes. In the case of schools, the loss of revenue causes an automatic rise in the mill levy for repaying school bonds. For everything else in the schools, counties, etc., not getting all of the revenue to which they are entitled from past voter decisions, planned services will have to be curtailed or voters will have to be asked to raise tax rates.

Additional language has been added into the ballot question that permits the DDA to continue the sales tax diversion even after the line of credit is paid off and closed; again without further voter approval. They can even use it to make additional subsidies if they go beyond their credit limit.

This ballot issue has importance and costs well beyond downtown. Only 1% of the registered voters of Loveland will get to vote on it. The corporations getting the subsidies will get to vote on it. Out-of-town landowners downtown will get to vote on it; however, 99% of Loveland's registered voters will not.

The few registered voters in the DDA might consider the interests of the rest of Loveland when returning their ballots on 5C.

ABSTRACT OF VOTES CAST AND STATEMENT OF CERTIFICATE OF DETERMINATION

Abstract of Votes Cast and Statement and Certificate of Determination of the Regular Municipal Election held in Loveland, Colorado, on Tuesday, November 7, 2017.

POSITION / MEASURE	Total No. of Votes Cast	Mayor	Ward 1	Ward 2	Ward 3	Ward 4
Loveland - Mayor						
John H. Fogle	17,805	6,331				
Jacki Marsh		8,310				
Larry Heckel		3,164				
City Councilor Ward 1						
Lenard Larkin	4,266		1,703			
Jeremy Jerswig			2,563			
City Councilor Ward 2						
Gail Snyder	4,733			1,645		
Kathi Wright				2,086		
Gary Lindquist				1,022		
City Councilor Ward 3						
Steve Olson	3,032				2,113	
John Ryan Keil					919	
City Councilor Ward 4						
Dave Clark	3,143					3,143

POSITION / MEASURE	Total No. of Votes Cast	YES	NO
LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY BALLOT ISSUE NO. 5C SHALL CITY OF LOVELAND DEBT BE INCREASED BY UP TO $61,000,000, WITH A REPAYMENT COST OF NO MORE THAN $135,000,000, WITHOUT RAISING TAXES, FOR THE PURPOSE OF FINANCING THE COSTS OF DEVELOPMENT PROJECTS TO BE UNDERTAKEN BY OR ON BEHALF OF THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PURSUANT TO THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PLAN OF DEVELOPMENT, WITH SUCH DEBT PAYABLE FROM AND SECURED BY A PLEDGE OF THE SPECIAL FUND OF THE CITY WHICH SHALL CONTAIN TAX INCREMENT REVENUES LEVIED AND COLLECTED WITHIN THE BOUNDARIES OF THE AUTHORITY WITHOUT RAISING TAXES, SHALL CITY OF LOVELAND DEBT BE INCREASED BY UP TO $61,000,000, WITH A REPAYMENT COST OF NO MORE THAN $135,000,000, FOR THE PURPOSE OF FINANCING THE COSTS OF DEVELOPMENT PROJECTS TO BE UNDERTAKEN BY OR ON BEHALF OF THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PURSUANT TO THE LOVELAND DOWNTOWN DEVELOPMENT AUTHORITY PLAN OF DEVELOPMENT, AS IT MAY BE AMENDED FROM TIME TO TIME, INCLUDING WITHOUT LIMITATION, PARKING, UTILITIES, STREETS, SIDEWALKS, ALLEYWAYS AND BEAUTIFICATION, AND APPLICABLE PROVISIONS OF COLORADO LAW, SUCH DEBT AND THE INTEREST THEREON TO BE PAYABLE FROM AND SECURED BY A PLEDGE OF THE SPECIAL FUND OF THE CITY WHICH SHALL CONTAIN TAX INCREMENT REVENUES LEVIED AND COLLECTED WITHIN THE BOUNDARIES OF THE AUTHORITY, AND SHALL SUCH DEBT BE EVIDENCED BY BONDS, NOTES, CONTRACTS OR OTHER FINANCIAL OBLIGATIONS TO BE SOLD IN ONE SERIES OR MORE FOR A PRICE ABOVE OR BELOW THE PRINCIPAL AMOUNT THEREOF, ON TERMS AND CONDITIONS, AND WITH SUCH MATURITIES AS PERMITTED BY LAW AND AS THE CITY MAY DETERMINE, INCLUDING PROVISIONS FOR REDEMPTION OF THE DEBT PRIOR TO MATURITY WITH OR WITHOUT PAYMENT OF THE PREMIUM OF NOT MORE THAN 3% OF THE PRINCIPAL AMOUNT SO REDEEMED; AND SHALL THE CITY AND THE AUTHORITY BE AUTHORIZED TO COLLECT, RETAIN AND SPEND THE TAX INCREMENT REVENUES, THE BOND PROCEEDS AND INVESTMENT INCOME THEREON AS A VOTER-APPROVED REVENUE CHANGE, AND EXCEPTION TO THE LIMITS WHICH WOULD OTHERWISE APPLY UNDER ARTICLE X, SECTION 20 OF THE COLORADO CONSTITUTION OR ANY OTHER LAW?	337	180	157

We, the undersigned, Designated Election Officials of an Election held in said City of Loveland, in the State of Colorado, on Tuesday, the 7th day of November, A.D. 2017, for the election for 4 Council Seats and Mayor and one TABOR ISSUE for the Loveland Downtown Development Authority, that the above and foregoing is a true and correct abstract of the votes cast at said election, as shown by the abstract provided by the Larimer County Clerk and Recorder for the voting precincts in said City of Loveland.

WITNESS our hands and seals this 27th day of November, A.D., 2017.

Beverly A. Walker, Acting City Clerk

CITY OF LOVELAND SEAL COLORADO

Kirsten Gjelde-Bennett, Acting Deputy City Clerk