ERO

Consultants in Natural Resources and the Environment

Materials Management Plan
Thornton Water Project CIP 12-777
Source Water Pump Station
Larimer County, Colorado

Prepared for—

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Materials Management Plan

Thornton Water Project
Source Water Pump Station
Larimer County, Colorado

1.0 Introduction

The City of Thornton (City) retained ERO Resources Corporation (ERO) develop a project-wide materials management plan (MMP) for the purposes of managing potentially contaminated or non-standard materials encountered during the construction of the Thornton Water Project (TWP) Source Water Pump Station (SWPS) in Larimer County, Colorado. This MMP is provided as a baseline for project activities and may be supplemented, adjusted, and amended as appropriate. If this document is in conflict with another, similar document, the more conservative document with respect to materials management, personnel safety and decontamination procedures will take precedent.

No specific areas of known or suspected contamination have been identified within the SWPS project area or buffer (ERO 2026).

This MMP has been prepared to accompany construction documents as a guideline for the identification, management, and disposal in the event of unanticipated or previously unidentified areas of suspected contamination or non-standard conditions are encountered.

1.1 Background

The SWPS consists of the terminus of a pipeline corridor and associated infrastructure and is located on historical agricultural and reservoir land. Possible contamination sources those associated with residential or agricultural activities, and unknown debris or solid waste disposal areas within or adjacent to the project area, however no specific areas of known or suspected contamination have been identified (ERO 2026).

1.2 Purpose of the MMP

The purpose of this MMP is to:

- Minimize worker exposure to contaminated materials;
- Prevent potentially contaminated materials from adversely impacting human health and the environment;
- Provide a framework of operational procedures for the proper management, handling, and disposal of contaminated or potentially contaminated materials in accordance with applicable regulations;
- Be compatible with site earthwork activities; and
- Outline earthwork and decontamination procedures when handling potentially regulated wastes.

This MMP has been prepared primarily to facilitate coordination between the City of Thornton, the Construction Manager, the Construction Contractor's Environmental Materials Management Coordinator (EMMC), and all Contractors performing site activities. Contractors performing work shall utilize this MMP to identify and manage contaminated soils, groundwater and materials exposed to media that may be contaminated. This MMP applies only to site conditions that may be encountered and should be updated periodically as new information comes to light.

2.0 Primary Contacts and Definitions

2.1 Contact List

The following list of contacts and roles/responsibilities are outlined for this project. Once the roles have been established, the following table should be completed and updated as necessary.

Organization	Role/Responsibility	Contact Information
City of Thornton	Property/Project Owner	**Name:** Michael Welker, P.E. **Title:** SWPS Project Manager **Phone:** 720-977-6276 **Email:** michael.welker@thorntonco.gov
Owner Representative / Construction Manager	Property/Project Owner Alternative Contact	**Name:** **Title:** **Phone:** **Alternate Phone:** **Email:**
Environmental Consultant ERO Resources Corporation	Owner's Material Management Coordinator	**Name:** Jack Denman **Title:** Geologist **Phone:** 303-830-1188 **Alternate Phone:** 720-812-3576 **Email:** jdenman@eroresources.com
Contractor Personnel		
Prime Contractor	Project Manager	**Name:** **Title:** **Phone:** **Alternate Phone**: **Email:**
Prime Contractor Certified Asbestos Building Inspector (CABI)	Debris Inspection	**Name:** **Title:** **Phone:** **Alternate Phone:** **Email:**
Prime Contractor.	Environmental Materials Management Coordinator	**Name:** **Title:** **Phone:** **Alternate Phone:** **Email:**
Prime Contractor	Health and Safety Coordinator	**Name:** **Title:** **Phone:** **Alternate Phone:** **Email:**
Emergency Spill Response	Emergency Spill Response	**Name:** **Title:** **Phone:** **Alternate Phone:** **Email:**

2.2 Definitions

ACM	Asbestos Containing Material
BGS	Below Ground Surface
CABI	Certified Asbestos Building Inspector
CDLE	Colorado Department of Labor and Employment
CDPHE	Colorado Department of Public Health & Environment
CDPS	Colorado Discharge Permit System
EPA	United States Environmental Protection Agency
EMMC	Environmental Materials Management Coordinator
ERR	Environmental Records Review
GAC	General (asbestos) Abatement Contractor
ID	Identification
mg/kg	Milligrams per kilogram
MMT	Materials Management Technician
MMP	Materials Management Plan
OSHA	Occupational Safety and Health Administration
Owner	City of Thornton
PID	Photo-ionization Detector
PPE	Personal Protective Equipment
RACS	Regulated Asbestos Contaminated Soil
RCRA	Resource Conservation and Recovery Act
SOP	Standard Operating Procedure
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds

3.0 Site Training Requirements

Although it is unlikely to encounter contamination within the project boundaries, the Contractor shall designate an Environmental Materials Management Coordinator (EMMC) that has sufficient knowledge and experience to identify suspected contaminated soils, groundwater, or other media within the project area, should they be encountered.

The EMMC shall have the knowledge, training, and experience with similar conditions and:

- Be accessible during all construction activities should suspicious material be encountered;
- Have sufficient training, awareness, and knowledge to identify field indications of contamination such as visual staining, non-native materials, discoloration, or oil sheen and able to use and interpret field equipment reading such as a Photoionization Detector (PID) used during the course of excavation to monitor for potential soil contamination;
- Have sufficient knowledge, training, and authority to coordinate the identification, confirmation, management and disposal of suspected or confirmed contaminated soils, groundwater, or other media.

All personnel and contractors are responsible for the health and safety of their employees in accordance with OSHA regulations. At no time shall the Owner or its agents, the Construction Manager or the EMMC be responsible for the health and safety of any individuals employed by a Contractor.

3.1 Site Specific Awareness

The EMMC shall be familiar with soil disturbing activities as well as provided reports regarding potential areas of soil or groundwater contamination.

3.2 Asbestos Containing Material Awareness

It is always possible to encounter ACM during excavation within or near the built environment. For this reason, the Contractor's EMMC shall be capable of recognizing that any non-green waste (biodegradable waste), natural stone, metal, glass, plastic, wood, and/or bare concrete may contain asbestos-containing material and must be inspected/monitored by a Colorado Department of Public Health and Environment (CDPHE) Certified Asbestos Building Inspector (CABI) who has at least six months of documented experience performing ACM inspections in soil. Native soil does not require inspection.

4.0 Summary of Soil and Water Action Levels

The following soil action levels are to be used to evaluate potentially contaminated soils.

4.1 Soil Action Levels

The proposed applicable standards for soils, with the exception of arsenic, are the EPA Regional Screening Level (RSLs) for Residential land use (Residential RSLs), as updated most recently in November 2024 (EPA 2024). A summary table is included in Appendix A.

With respect to arsenic, because arsenic is naturally occurring in Colorado, the proposed applicable soil standard for arsenic is the documented background arsenic concentration on the Colorado Front Range of 11 mg/kg (CDPHE 2014a).

Total petroleum hydrocarbon concentrations (TPH) in soils follows the Colorado regulatory screening level of 500 mg/kg.

The laboratory action level for asbestos in soils is non-detect as determined by laboratory analysis.

4.2 Groundwater Action Levels

Any water generated from construction dewatering activities must comply with the applicable Colorado Discharge Permit System (CDPS) standards.

4.3 Imported Soils Action Levels

Any soils imported for use on the project shall be certified by the generator of the soil to be “clean” soil. Clean is defined as documented meeting the following criteria at a sampling rate of one sample per 500 cubic yards, based on origin and documentation of source:

- EPA Residential RSLs (<11 mg/kg arsenic)
- Free of debris
- Certified native soils or sampled and negative finding for asbestos

This certification shall be made in writing by the entity supplying the soil along with the appropriate analytical data, source location and responsible party for the imported material. Contractor is solely responsible for providing any and all supporting documentation for imported materials.

5.0 Field Screening Methods

Soil, debris, or groundwater encountered or generated during the Project will be field screened by the Contractor's EMMC (or designee) and a determination made for proper management (see Section 6.0). Field screening refers to the use of portable devices capable of detecting VOCs including petroleum compounds on a real-time basis, field observations, and if necessary, laboratory analysis.

5.1 Soil Screening

The presence of potentially contaminated soils shall be determined through:

a. Visual Observation (staining, discoloration, or oil sheen)

b. Odor detection

c. PID monitoring device

d. Observation of non-green wastes

Environmental field screening of soils encountered will be conducted as follows:

- **Observation.** If the material is discolored (mottled colors), dark grey, brown to black, it will be designated as potentially contaminated. Odors and other potential staining are also indicators. Any non-native soils with debris observed requires additional inspection/evaluation outlined in the Asbestos Screening section below (Section 5.2).
- **Vapor monitoring.** Olfactory observation and/or photo-ionization detector (PID) will be used to assess the potential occurrence of petroleum or other volatile organic compound contamination. PID measurements will be completed as material is encountered. Soils exhibiting these characteristics will be segregated into a separate stockpile, if practicable, or demarcated in the field. If field screening indicates volatile vapors, a soil sample from the segregated stockpile will be collected and analyzed for VOCs by EPA Method 8260. At a minimum, one soil sample per 100 cubic yards of suspect material will be collected by the Contractor to establish contaminant content.
- **Petroleum contamination monitoring.** Petroleum impact will be determined by observation (staining), odor, and use of the PID. Soils exhibiting these characteristics will be segregated into a separate stockpile, if practicable, or demarcated in the field. If petroleum impact is suspected a composite soil sample from the segregated stockpile will be collected and analyzed for TPH by EPA Method 8015. At a minimum, at least one soil sample per 100 cubic yards of suspect material will be collected by the Contractor to establish contaminant content. Additional samples may be required for waste disposal purposes.

The EMMC and Owner Representative(s) will establish stabilizing and/or stockpile procedures and locations, markings, and on-site management protocols. It is the EMMC's responsibility to track material management volumes, sampling, and characterization data. Soil screening protocols are outlined in Table 1.

Any suspected contaminated soils encountered require notification to the Construction Manager.

Table 1. Soil screening protocols.

Field Screening	Determination	Mechanism	Sample Frequency
Observation	Native soil or fill materials	Color, odor, media observed	Ongoing, testing for asbestos if required
VOC Screen	VOC-contamination	PID, Odors, Lab confirmation (EPA Method 8260)	1 per 100 CY of suspect material
TPH	TPH contamination	Observation, Lab confirmation (EPA Method 8015)	1 per 100 CY of suspect material

5.2 Asbestos Screening

Soil disturbing activities that encounter coated utility lines and material that is not green waste (biodegradable waste), natural stone, metal, glass, plastic, wood, and/or bare concrete, must be inspected/monitored by a CDPHE Certified Asbestos Building Inspector (CABI) who has at least six months of documented experience performing ACM inspections in soil. The CABI may take samples of materials to confirm asbestos content as necessary. Native soil does not require inspection.

When debris is encountered that is not green waste (biodegradable waste), natural stone, metal, glass, plastic, wood, and/or bare concrete, the debris shall be:

1. **Stabilized and left in place** until inspection by a CABI and determined not to contain ACM; or
2. Assumed to contain ACM; or
3. Analyzed by polarized light microscopy (PLM) by a National Voluntary Laboratory Accreditation Program participating laboratory.

Encountering of any debris that is assumed to contain asbestos or determined to contain asbestos by laboratory testing requires notification to the Construction Manager and must be removed by a Certified Asbestos General Abatement Contractor (GAC) under the supervision of a CABI in accordance with CDPHE Solid Waste Regulations 6 CCR 1007-2 Section 5.5 (CDPHE 2025) contained in Appendix B and Occupational Safety and Health Administration requirements.

Under no circumstances shall material that is not green waste (biodegradable waste), natural stone, metal, glass, plastic, wood, and/or bare concrete be excavated, packaged or disposed prior to the inspection and confirmation of management procedures by a CABI.

Under no circumstances shall any coated pipeline or cement pipe encountered be cut prior to the inspection and confirmation of asbestos content by a CABI.

5.3 Groundwater Screening

Any water generated from construction dewatering activities must comply with the CDPS. If groundwater is encountered during construction, it must be contained and appropriate samples collected and analyzed. Field screening of groundwater is limited to observation (color, oil sheen), odor, and measurement of volatile vapors with a PID.

6.0 Soil and Groundwater Management

Site activities that encounter soils and/or groundwater that are deemed contaminated or non-standard require notification to the Construction Manager and may require special handling and/or disposal by the Contractor prior to or once excavated. Options for managing these media are outlined below.

6.1 Soil Exceeding Residential Action Levels

Suspected contaminated soils with laboratory contaminant concentrations exceeding the action levels identified in Section 4.1 of this MMP will be subject to special management and disposal off-site.

No soils exceeding action levels and deemed contaminated shall be placed back in any excavation.

6.2 Soils Below Residential Action Levels

Soils that are below the action levels identified in Section 4.1 of this MMP and deemed uncontaminated by the EMMC are considered unrestricted use soils and can be utilized for any appropriate purpose or disposed off-site.

Soils exhibiting petroleum or other odors, staining, or sheen will be considered "contaminated" regardless of laboratory results and shall not be placed back within any excavation.

6.3 Soils with Non-Standard Organics/Manure

Soils that contain a significant proportion of non-standard organic material, compost, and/or manure in relation to native soils are not deemed contaminated, but must be subject to special management under this MMP.

Soils with significant non-standard organic content such as manure, shall be excavated and staged outside of the immediate construction area and shall not be placed back within any excavation. Further management is at the discretion of the landowner from which the material originated.

6.4 Groundwater Management During Construction

Groundwater generated during construction will be subject to the applicable requirements of the CDPS permit obtained for the project. Additional analysis to further characterize water generated during construction will be conducted by the Contractor, as necessary. Should the Contractor choose to dispose of the groundwater at an off-site treatment and disposal facility, no CDPS permit will be required.

7.0 Material Management Strategies During Construction

7.1 Soil Excavation

Trenching/excavations will be the primary excavation activity associated with the Project and as it relates to materials management should, at a minimum, consist of the following soil screening protocols:

- Any encountered debris shall be screened in accordance with Section 5.0 of this MMP.
- Soil screening of the excavation by the Contractor's EMMC (or designee) will take place at the "working face" of the excavation to the greatest extent safely feasible.
- If contaminated or potentially contaminated soils are identified, the Contractor shall take the necessary precautions to protect all Contractor personnel, Owner, Owners Advisor, Construction Manager, Engineer, project area and lands and conduct the following:
    - Contractor shall immediately notify the Construction Manager of the potential for contaminated soil;
    - Contractor shall stabilize, segregate, protect, or remove potentially contaminated soils and/or debris pending inspection, analysis, and waste determination in accordance with this MMP.
    - Contractor shall collect the appropriate samples for characterization taken (see Table 1).
    - All contaminated soils shall be profiled, transported and disposed off-site at a certified landfill under a manifest in accordance with state and federal regulations. Contractor shall coordinate disposal of all wastes and retain all copies of all laboratory data, profile approvals, manifests, and bills of lading for any contaminated soils encountered and disposed. Owner shall approve waste disposal profile and disposal facility prior to any disposal.
    - Contractor shall replace material removed from the site with acceptable fill.

7.2 Construction Water Management

Water generated as a result of a construction activity will be contained prior to discharge or disposal. The Contractor may submit for a CDPS construction dewatering permit or contract to have the water hauled to a treatment facility.

No water generated from construction dewatering activities will be directly discharged into any storm or sanitary sewers, directly discharged into a ditch or other type of conveyance, or land disposed unless the specific permit allows.

7.3 Fugitive Dust Emissions

Fugitive dust control will primarily use water to control dispersion of concrete dust and soil during excavation, loading, transport, stockpiling, and/or placement of soil. The Contractor will provide BMPs on the project during all operations for use as needed to control dust.

8.0 Decontamination of Personnel and Equipment

Decontamination of personnel and equipment will be required after encountering suspected contaminated materials. Decontamination will typically include hygiene requirements such as removing gross soil accumulated on clothing and footwear, washing hands, and limiting eating and smoking in the work area. Decontamination of equipment leaving the site will include visual inspection and hand removal of caked on mud, primarily to meet Stormwater Discharge Permit and county road tracking requirements.

In the event that contaminated soils other than asbestos-contaminated soils are discovered, the Contractor shall implement the decontamination procedures generally outlined below. In the event asbestos-contaminated soils are encountered, decontamination procedures will follow those outlined in the applicable portions of the Colorado Solid Waste Regulations Section 5.5 (Appendix B).

8.1 Decontamination Area

A decontamination area will be designated at the access/egress portion of the contaminated soil removal area. This area will be used for equipment, tools, and personnel decontamination, as appropriate. Every effort will be made to limit decontamination activities to portions of the Project with hardscape (asphalt/concrete). If it is necessary to perform decontamination on portions of the Property without hardscape, the area will be cleaned by removing any contaminated soil and/or water to meet the land use criteria of the area.

8.2 Decontamination Procedures

In the event of a life or limb-threatening emergency, decontamination procedures are a secondary concern. Emergency medical personnel should be warned of the type and extent of contamination if decontamination procedures are not completed prior to treatment. If emergency personnel enter a work area considered contaminated, inform the emergency medical personnel of potential hazards in the work area.

All personnel working in contaminated areas shall minimize contact with and exposure to contaminated soils and water. Personal Protective Equipment (PPE) to be reused can be decontaminated to meet a visual standard and inspected for potential problems or defects prior to reuse. Disposable PPE, such as coveralls and gloves, shall be cleaned of gross contamination and placed in containers designated by the Contractor, labeled, and managed in accordance with a waste determination made by the EMMC.

8.3 Equipment Decontamination

Equipment, or portions thereof, that has come into contact with contaminated materials shall be cleaned to a visual standard and free from gross soil contamination (e.g. visible soil clods, caked mud, etc.). If necessary, physical cleaning of the equipment payload areas (e.g., loader bucket, truck bed) may be required to obtain the standard. If needed, a decontamination pad shall be set up for heavy equipment, if needed. Any water generated during decontamination procedures will be containerized, labeled, stored, and managed. Decontamination water will be disposed of in accordance with recommendations from the EMMC and in accordance with CDPHE regulations.

9.0 References

9.1 General

Colorado Department of Public Health and Environment (CDPHE). 2014. Risk management guidance for evaluating arsenic concentrations in soils. July.

Colorado Department of Public Health and Environment (CDPHE), Solid and Hazardous Waste Commission/Hazardous Materials and Waste Management Division. 2025. 6 CCR 1007-2 Regulations pertaining to Solid Waste Sites and Facilities January 14.

Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division. 2020. Regulation 41. The Basic Standards for Groundwater. June 30.

ERO Resources Corporation (ERO). 2026. Environmental Records Review (ERR). TWP SWPS Environmental Records Review, Larimer County, Colorado. May 29.

U.S. Environmental Protection Agency (EPA) Regional Screening Levels. 2024. https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables. November 2024.

Appendix A EPA RSLs 2024

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				3.00E-04	O						1.36E+09		1	0.1	Acephate	30560-19-1					2.3E+01	9.9E+01		1.9E+01
		2.20E-06	I			9.00E-03	I	V		1.07E+05	1.36E+09	8.72E+03	1		Acetaldehyde	75-07-0			1.1E+01	1.1E+01			8.2E+01	8.2E+01
				2.00E-02	I						1.36E+09		1	0.1	Acetochlor	34256-82-1					1.6E+03	6.6E+03		1.3E+03
				9.00E-01	I			V		1.14E+05	1.36E+09	1.37E+04	1		Acetone	67-64-1					7.0E+04			7.0E+04
						2.00E-03	X				1.36E+09		1	0.1	Acetone Cyanohydrin	75-86-5							2.8E+06	2.8E+06
						6.00E-02	I	V		1.28E+05	1.36E+09	1.30E+04	1		Acetonitrile	75-05-8							8.1E+02	8.1E+02
				1.00E-01	I			V		2.52E+03	1.36E+09	5.97E+04	1		Acetophenone	98-86-2					7.8E+03			7.8E+03
3.80E+00	C	1.30E-03	C								1.36E+09		1	0.1	Acetylaminofluorene, 2-	53-96-3	1.8E-01	6.5E-01	2.9E+03	1.4E-01				
				5.00E-04	I	2.00E-05	I	V		2.27E+04	1.36E+09	6.91E+03	1		Acrolein	107-02-8					3.9E+01		1.4E-01	1.4E-01
5.00E-01	I	1.00E-04	I	2.00E-03	I	6.00E-03	I		M		1.36E+09		1	0.1	Acrylamide	79-06-1	3.1E-01	1.2E+00	1.4E+04	2.4E-01	1.6E+02	6.6E+02	8.5E+06	1.3E+02
				5.00E-01	I	2.00E-04	P	V		1.09E+05	1.36E+09	9.53E+04	1		Acrylic Acid	79-10-7					3.9E+04		2.0E+01	2.0E+01
5.40E-01	I	6.80E-05	I	9.00E-05	T	2.00E-03	I	V		1.13E+04	1.36E+09	7.69E+03	1		Acrylonitrile	107-13-1	1.3E+00		3.2E-01	2.5E-01	7.0E+00		1.6E+01	4.9E+00
						6.00E-03	P				1.36E+09		1	0.1	Adiponitrile	111-69-3							8.5E+06	8.5E+06
5.60E-02	C			1.00E-02	I						1.36E+09		1	0.1	Alachlor	15972-60-8	1.2E+01	4.4E+01		9.7E+00	7.8E+02	3.3E+03		6.3E+02
				1.00E-03	I						1.36E+09		1	0.1	Aldicarb	116-06-3					7.8E+01	3.3E+02		6.3E+01
				1.00E-03	I						1.36E+09		1	0.1	Aldicarb Sulfone	1646-88-4					7.8E+01	3.3E+02		6.3E+01
											1.36E+09		1	0.1	Aldicarb sulfoxide	1646-87-3								
1.70E+01	I	4.90E-03	I	3.00E-05	I			V			1.36E+09	1.72E+06	1		Aldrin	309-00-2	4.1E-02		9.8E-01	3.9E-02	2.3E+00			2.3E+00
				4.00E-03	P	1.00E-04	X	V		1.11E+05	1.36E+09	3.42E+04	1		Allyl Alcohol	107-18-6					3.1E+02		3.6E+00	3.5E+00
2.10E-02	C	6.00E-06	C			1.00E-03	I	V		1.42E+03	1.36E+09	1.58E+03	1		Allyl Chloride	107-05-1	3.3E+01		7.4E-01	7.2E-01			1.7E+00	1.7E+00
				1.00E+00	P	5.00E-03	P				1.36E+09		1		Aluminum	7429-90-5					7.8E+04		7.1E+06	7.7E+04
				4.00E-04	I						1.36E+09		1		Aluminum Phosphide	20859-73-8					3.1E+01			3.1E+01
				9.00E-03	I						1.36E+09		1	0.1	Ametryn	834-12-8					7.0E+02	3.0E+03		5.7E+02
2.10E+01	C	6.00E-03	C								1.36E+09		1	0.1	Aminobiphenyl, 4-	92-67-1	3.3E-02	1.2E-01	6.4E+02	2.6E-02				
				8.00E-02	P						1.36E+09		1	0.1	Aminophenol, m-	591-27-5					6.3E+03	2.6E+04		5.1E+03
				4.00E-03	X						1.36E+09		1	0.1	Aminophenol, o-	95-55-6					3.1E+02	1.3E+03		2.5E+02
				2.00E-02	P						1.36E+09		1	0.1	Aminophenol, p-	123-30-8					1.6E+03	6.6E+03		1.3E+03
				2.50E-03	I						1.36E+09		1	0.1	Amitraz	33089-61-1					2.0E+02	8.2E+02		1.6E+02
						5.00E-01	I	V					1		Ammonia	7664-41-7								
				2.00E-03	X						1.36E+09		1	0.1	Ammonium Picrate	131-74-8					1.6E+02	6.6E+02		1.3E+02
				2.00E-01	I						1.36E+09		1		Ammonium Sulfamate	7773-06-0					1.6E+04			1.6E+04
						3.00E-03	X	V		1.37E+04	1.36E+09	2.62E+04	1		Amyl Alcohol, tert-	75-85-4							8.2E+01	8.2E+01
5.70E-03	I	1.60E-06	C	7.00E-03	P	1.00E-03	I				1.36E+09		1	0.1	Aniline	62-53-3	1.2E+02	4.3E+02	2.4E+06	9.5E+01	5.5E+02	2.3E+03	1.4E+06	4.4E+02
4.00E-02	P			2.00E-03	X						1.36E+09		1	0.1	Anthraquinone, 9,10-	84-65-1	1.7E+01	6.2E+01		1.4E+01	1.6E+02	6.6E+02		1.3E+02
				4.00E-04	I	3.00E-04	A				1.36E+09		0.15		Antimony (metallic)	7440-36-0					3.1E+01		4.3E+05	3.1E+01
				5.00E-04	H						1.36E+09		0.15		Antimony Pentoxide	1314-60-9					3.9E+01			3.9E+01
				4.00E-04	H						1.36E+09		0.15		Antimony Tetroxide	1332-81-6					3.1E+01			3.1E+01
						2.00E-04	I				1.36E+09		0.15		Antimony Trioxide	1309-64-4							2.8E+05	2.8E+05
1.50E+00	I	4.30E-03	I	3.00E-04	I	1.50E-05	C				1.36E+09		1	0.03	Arsenic, Inorganic	7440-38-2	7.7E-01	5.5E+00	8.9E+02	6.8E-01	3.9E+01	3.3E+02	2.1E+04	3.5E+01
				3.50E-06	C	5.00E-05	I				1.36E+09		1		Arsine	7784-42-1					2.7E-01		7.1E+04	2.7E-01
													1		Asbestos (units in fibers)	1332-21-4								
				3.60E-01	O						1.36E+09		1	0.1	Asulam	3337-71-1					2.8E+04	1.2E+05		2.3E+04
2.30E-01	C			3.00E-03	A						1.36E+09		1	0.1	Atrazine	1912-24-9	3.0E+00	1.1E+01		2.4E+00	2.3E+02	9.9E+02		1.9E+02
8.80E-01	C	2.50E-04	C								1.36E+09		1	0.1	Auramine	492-80-8	7.9E-01	2.8E+00	1.5E+04	6.2E-01				
				4.00E-04	I						1.36E+09		1	0.1	Avermectin B1	65195-55-3					3.1E+01	1.3E+02		2.5E+01
				3.00E-03	A	1.00E-02	A				1.36E+09		1	0.1	Azinphos-methyl	86-50-0					2.3E+02	9.9E+02	1.4E+07	1.9E+02
1.10E-01	I	3.10E-05	I					V			1.36E+09	5.23E+05	1		Azobenzene	103-33-3	6.3E+00		4.7E+01	5.6E+00				
				1.00E+00	P	7.00E-06	P				1.36E+09		1	0.1	Azodicarbonamide	123-77-3					7.8E+04	3.3E+05	9.9E+03	8.6E+03
				2.00E-01	I	5.00E-04	H				1.36E+09		0.07		Barium	7440-39-3					1.6E+04		7.1E+05	1.5E+04
				5.00E-03	O			V			1.36E+09	3.07E+05	1		Benfluralin	1861-40-1					3.9E+02			3.9E+02
				5.00E-02	I						1.36E+09		1	0.1	Benomyl	17804-35-2					3.9E+03	1.6E+04		3.2E+03
				2.00E-01	I						1.36E+09		1	0.1	Bensulfuron-methyl	83055-99-6					1.6E+04	6.6E+04		1.3E+04
				3.00E-02	I						1.36E+09		1	0.1	Bentazon	25057-89-0					2.3E+03	9.9E+03		1.9E+03
4.00E-03	P			1.00E-01	I			V		1.16E+03	1.36E+09	2.25E+04	1		Benzaldehyde	100-52-7	1.7E+02			1.7E+02	7.8E+03			7.8E+03
5.50E-02	I	7.80E-06	I	4.00E-03	I	3.00E-02	I	V		1.82E+03	1.36E+09	3.54E+03	1		Benzene	71-43-2	1.3E+01		1.3E+00	1.2E+00	3.1E+02		1.1E+02	8.2E+01
						4.00E-03	C	V		1.82E+02	1.36E+09	1.23E+04	1		Benzene, Trimethyl	25551-13-7							5.1E+01	5.1E+01
1.00E-01	X			3.00E-04	X						1.36E+09		1	0.1	Benzenediamine-2-methyl sulfate, 1,4-	6369-59-1	7.0E+00	2.5E+01		5.4E+00	2.3E+01	9.9E+01		1.9E+01
				1.00E-03	P			V		1.26E+03	1.36E+09	1.94E+04	1		Benzenethiol	108-98-5					7.8E+01			7.8E+01
2.30E+02	I	6.70E-02	I	3.00E-03	I				M		1.36E+09		1	0.1	Benzidine	92-87-5	6.7E-04	2.6E-03	2.1E+01	5.3E-04	2.3E+02	9.9E+02		1.9E+02
				4.00E+00	I						1.36E+09		1	0.1	Benzoic Acid	65-85-0					3.1E+05	1.3E+06		2.5E+05
1.30E+01	I							V		3.24E+02	1.36E+09	6.76E+04	1		Benzotrichloride	98-07-7	5.3E-02			5.3E-02				
				1.00E-01	P						1.36E+09		1	0.1	Benzyl Alcohol	100-51-6					7.8E+03	3.3E+04		6.3E+03
1.70E-01	I	4.90E-05	C	2.00E-03	P	1.00E-03	P	V		1.46E+03	1.36E+09	2.55E+04	1		Benzyl Chloride	100-44-7	4.1E+00		1.5E+00	1.1E+00	1.6E+02		2.7E+01	2.3E+01
		2.40E-03	I	2.00E-03	I	2.00E-05	I				1.36E+09		0.007		Beryllium and compounds	7440-41-7			1.6E+03	1.6E+03	1.6E+02		2.8E+04	1.6E+02
				9.00E-03	P						1.36E+09		1	0.1	Bifenox	42576-02-3					7.0E+02	3.0E+03		5.7E+02
				1.50E-02	I						1.36E+09		1	0.1	Biphenthrin	82657-04-3					1.2E+03	4.9E+03		9.5E+02
8.00E-03	I			5.00E-01	I	4.00E-04	X	V			1.36E+09	1.14E+05	1		Biphenyl, 1,1'-	92-52-4	8.7E+01			8.7E+01	3.9E+04		4.8E+01	4.7E+01
				4.00E-02	I			V		1.02E+03	1.36E+09	3.50E+04	1		Bis(2-chloro-1-methylethyl) ether	108-60-1					3.1E+03			3.1E+03
				3.00E-03	P						1.36E+09		1	0.1	Bis(2-chloroethoxy)methane	111-91-1					2.3E+02	9.9E+02		1.9E+02
1.10E+00	I	3.30E-04	I					V		5.05E+03	1.36E+09	4.25E+04	1		Bis(2-chloroethyl)ether	111-44-4	6.3E-01		3.6E-01	2.3E-01				
2.20E+02	I	6.20E-02	I					V		4.22E+03	1.36E+09	1.88E+03	1		Bis(chloromethyl)ether	542-88-1	3.2E-03		8.5E-05	8.3E-05				
				5.00E-02	I						1.36E+09		1	0.1	Bisphenol A	80-05-7					3.9E+03	1.6E+04		3.2E+03
				2.00E-01	I	2.00E-02	H				1.36E+09		1		Boron And Borates Only	7440-42-8					1.6E+04		2.8E+07	1.6E+04
				2.00E+00	P	2.00E-02	P	V			1.36E+09		1		Boron Trichloride	10294-34-5					1.6E+05		2.8E+07	1.6E+05
				4.00E-02	C	1.30E-02	C	V			1.36E+09		1		Boron Trifluoride	7637-07-2					3.1E+03		1.8E+07	3.1E+03
7.00E-01	I	1.40E-04	C	4.00E-03	I						1.36E+09		1		Bromate	15541-45-4	9.9E-01		2.7E+04	9.9E-01	3.1E+02			3.1E+02
				1.00E-04	X	6.00E-05	X	V		2.38E+03	1.36E+09	5.92E+03	1		Bromo-2-chloroethane, 1-	107-04-0					7.8E+00		3.7E-01	3.5E-01
				3.00E-04	X			V		8.96E+02	1.36E+09	1.12E+04	1		Bromo-3-fluorobenzene, 1-	1073-06-9					2.3E+01			2.3E+01
				3.00E-04	X			V		3.23E+02	1.36E+09	1.14E+04	1		Bromo-4-fluorobenzene, 1-	460-00-4					2.3E+01			2.3E+01
				1.70E-03	C						1.36E+09		1	0.1	Bromoacetic acid	79-08-3					1.3E+02	5.6E+02		1.1E+02
				8.00E-03	I	6.00E-02	I	V		6.79E+02	1.36E+09	8.37E+03	1		Bromobenzene	108-86-1					6.3E+02		5.2E+02	2.9E+02
						4.00E-02	X	V		4.04E+03	1.36E+09	3.58E+03	1		Bromochloromethane	74-97-5							1.5E+02	1.5E+02
6.20E-02	I	3.70E-05	C	8.00E-03	P			V		9.32E+02	1.36E+09	3.97E+03	1		Bromodichloromethane	75-27-4	1.1E+01		3.0E-01	2.9E-01	6.3E+02			6.3E+02

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
7.90E-03	I	1.10E-06	I	2.00E-02	I			V		9.15E+02	1.36E+09	9.70E+03	1		Bromoform	75-25-2	8.8E+01		2.5E+01	1.9E+01	1.6E+03			1.6E+03
				1.40E-03	I	5.00E-03	I	V		3.59E+03	1.36E+09	1.40E+03	1		Bromomethane	74-83-9					1.1E+02		7.3E+00	6.8E+00
				5.00E-03	H			V			1.36E+09	1.24E+05	1		Bromophos	2104-96-3					3.9E+02			3.9E+02
		3.70E-06	C			1.00E-01	A	V		9.66E+02	1.36E+09	2.14E+03	1		Bromopropane, 1-	106-94-5			1.6E+00	1.6E+00			2.2E+02	2.2E+02
1.03E-01	O			1.50E-02	O						1.36E+09		1	0.1	Bromoxynil	1689-84-5	6.7E+00	2.4E+01		5.3E+00	1.2E+03	4.9E+03		9.5E+02
1.03E-01	O			1.50E-02	O			V			1.36E+09	4.74E+05	1		Bromoxynil Octanoate	1689-99-2	6.7E+00			6.7E+00	1.2E+03			1.2E+03
6.00E-01	C	3.00E-05	I			2.00E-03	I	V		6.67E+02	1.36E+09	8.66E+02	1		Butadiene, 1,3-	106-99-0	1.2E+00		8.1E-02	7.6E-02			1.8E+00	1.8E+00
				1.00E-01	I			V		7.64E+03	1.36E+09	3.00E+04	1		Butanol, N-	71-36-3					7.8E+03			7.8E+03
5.00E-04	I			4.00E-01	I	5.00E+00	I	V			1.36E+09	2.87E+04	1		Butyl Alcohol, t-	75-65-0	1.4E+03			1.4E+03	3.1E+04		1.5E+05	2.6E+04
				2.00E+00	P	3.00E-01	P	V		2.13E+04	1.36E+09	2.92E+04	1		Butyl alcohol, sec-	78-92-2					1.6E+05		9.1E+05	1.3E+05
				5.00E-02	I			V			1.36E+09	8.63E+04	1		Butylate	2008-41-5					3.9E+03			3.9E+03
2.00E-04	C	5.70E-08	C								1.36E+09		1	0.1	Butylated hydroxyanisole	25013-16-5	3.5E+03	1.2E+04	6.7E+07	2.7E+03				
3.60E-03	P			3.00E-01	P						1.36E+09		1	0.1	Butylated hydroxytoluene	128-37-0	1.9E+02	6.9E+02		1.5E+02	2.3E+04	9.9E+04		1.9E+04
				5.00E-02	P			V		1.08E+02	1.36E+09	8.14E+03	1		Butylbenzene, n-	104-51-8					3.9E+03			3.9E+03
				1.00E-01	X			V		1.45E+02	1.36E+09	7.35E+03	1		Butylbenzene, sec-	135-98-8					7.8E+03			7.8E+03
				1.00E-01	X			V		1.83E+02	1.36E+09	7.36E+03	1		Butylbenzene, tert-	98-06-6					7.8E+03			7.8E+03
				2.00E-02	A						1.36E+09		1	0.1	Cacodylic Acid	75-60-5					1.6E+03	6.6E+03		1.3E+03
		1.80E-03	I	1.00E-04	A	1.00E-05	A				1.36E+09		0.025	0.001	Cadmium (Diet)	7440-43-9			2.1E+03	2.1E+03	7.8E+00	8.2E+01	1.4E+04	7.1E+00
		1.80E-03	I	1.00E-04	A	1.00E-05	A						0.05	0.001	Cadmium (Water)	7440-43-9								
				5.00E-01	I	2.20E-03	C				1.36E+09		1	0.1	Caprolactam	105-60-2					3.9E+04	1.6E+05	3.1E+06	3.1E+04
1.50E-01	C	4.30E-05	C	2.00E-03	I						1.36E+09		1	0.1	Captafol	2425-06-1	4.6E+00	1.6E+01	8.9E+04	3.6E+00	1.6E+02	6.6E+02		1.3E+02
2.30E-03	C	6.60E-07	C	1.30E-01	I						1.36E+09		1	0.1	Captan	133-06-2	3.0E+02	1.1E+03	5.8E+06	2.4E+02	1.0E+04	4.3E+04		8.2E+03
				1.00E-01	I						1.36E+09		1	0.1	Carbaryl	63-25-2					7.8E+03	3.3E+04		6.3E+03
				5.00E-03	I						1.36E+09		1	0.1	Carbofuran	1563-66-2					3.9E+02	1.6E+03		3.2E+02
				1.00E-01	I	7.00E-01	I	V		7.38E+02	1.36E+09	1.17E+03	1		Carbon Disulfide	75-15-0					7.8E+03		8.5E+02	7.7E+02
7.00E-02	I	6.00E-06	I	4.00E-03	I	1.00E-01	I	V		4.58E+02	1.36E+09	1.49E+03	1		Carbon Tetrachloride	56-23-5	9.9E+00		7.0E-01	6.5E-01	3.1E+02		1.6E+02	1.0E+02
						1.00E-01	P	V		5.89E+03	1.36E+09	6.46E+02	1		Carbonyl Sulfide	463-58-1							6.7E+01	6.7E+01
				1.00E-02	I						1.36E+09		1	0.1	Carbosulfan	55285-14-8					7.8E+02	3.3E+03		6.3E+02
				1.00E-01	I						1.36E+09		1	0.1	Carboxin	5234-68-4					7.8E+03	3.3E+04		6.3E+03
						9.00E-04	I				1.36E+09		1		Ceric oxide	1306-38-3							1.3E+06	1.3E+06
				1.00E-01	I			V			1.36E+09	1.45E+05	1		Chloral Hydrate	302-17-0					7.8E+03			7.8E+03
				1.50E-02	I						1.36E+09		1	0.1	Chloramben	133-90-4					1.2E+03	4.9E+03		9.5E+02
											1.36E+09		1	0.1	Chloramines, Organic	E701235								
4.03E-01	H										1.36E+09		1	0.1	Chloranil	118-75-2	1.7E+00	6.1E+00		1.3E+00				
				5.00E-04	G			V			1.36E+09	1.49E+06	1	0.04	Chlordane (alpha)	5103-71-9					3.9E+01	4.1E+02		3.6E+01
				5.00E-04	G			V			1.36E+09	1.49E+06	1	0.04	Chlordane (gamma)	5103-74-2					3.9E+01	4.1E+02		3.6E+01
3.50E-01	I	1.00E-04	I	5.00E-04	I	7.00E-04	I	V			1.36E+09	1.53E+06	1	0.04	Chlordane (technical mixture)	12789-03-6	2.0E+00	1.8E+01	4.3E+01	1.7E+00	3.9E+01	4.1E+02	1.1E+03	3.5E+01
1.00E+01	I	4.60E-03	C	3.00E-04	I						1.36E+09		1	0.1	Chlordecone (Kepone)	143-50-0	7.0E-02	2.5E-01	8.3E+02	5.4E-02	2.3E+01	9.9E+01		1.9E+01
				7.00E-04	A						1.36E+09		1	0.1	Chlorfenvinphos	470-90-6					5.5E+01	2.3E+02		4.4E+01
				9.00E-02	O						1.36E+09		1	0.1	Chlorimuron, Ethyl-	90982-32-4					7.0E+03	3.0E+04		5.7E+03
				1.00E-01	I	1.45E-04	A	V		2.78E+03	1.36E+09	1.22E+03	1		Chlorine	7782-50-5					7.8E+03		1.8E-01	1.8E-01
				3.00E-02	I	2.00E-04	I	V			1.36E+09		1		Chlorine Dioxide	10049-04-4					2.3E+03		2.8E+05	2.3E+03
				3.00E-02	I						1.36E+09		1		Chlorite (Sodium Salt)	7758-19-2					2.3E+03			2.3E+03
						5.00E+01	I	V		1.15E+03	1.36E+09	1.03E+03	1		Chloro-1,1-difluoroethane, 1-	75-68-3							5.4E+04	5.4E+04
		3.00E-04	I	2.00E-02	H	2.00E-02	I	V	M	7.86E+02	1.36E+09	1.08E+03	1		Chloro-1,3-butadiene, 2- (Chloroprene)	126-99-8			3.6E-03	3.6E-03	1.6E+03		2.2E+01	2.2E+01
4.60E-01	H										1.36E+09		1	0.1	Chloro-2-methylaniline HCl, 4-	3165-93-3	1.5E+00	5.4E+00		1.2E+00				
1.00E-01	P	7.70E-05	C	3.00E-03	X						1.36E+09		1	0.1	Chloro-2-methylaniline, 4-	95-69-2	7.0E+00	2.5E+01	5.0E+04	5.4E+00	2.3E+02	9.9E+02		1.9E+02
2.70E-01	X							V		1.18E+04	1.36E+09	1.62E+04	1		Chloroacetaldehyde, 2-	107-20-0	2.6E+00			2.6E+00				
				3.50E-03	C						1.36E+09		1	0.1	Chloroacetic Acid	79-11-8					2.7E+02	1.2E+03		2.2E+02
						3.00E-05	I				1.36E+09		1	0.1	Chloroacetophenone, 2-	532-27-4							4.3E+04	4.3E+04
2.00E-01	P			5.00E-04	P						1.36E+09		1	0.1	Chloroaniline, p-	106-47-8	3.5E+00	1.2E+01		2.7E+00	3.9E+01	1.6E+02		3.2E+01
				2.00E-02	I	5.00E-02	P	V		7.61E+02	1.36E+09	6.45E+03	1		Chlorobenzene	108-90-7					1.6E+03		3.4E+02	2.8E+02
				1.00E-01	X						1.36E+09		1	0.1	Chlorobenzene sulfonic acid, p-	98-66-8					7.8E+03	3.3E+04		6.3E+03
1.10E-01	C	3.10E-05	C	2.00E-02	I						1.36E+09		1	0.1	Chlorobenzilate	510-15-6	6.3E+00	2.2E+01	1.2E+05	4.9E+00	1.6E+03	6.6E+03		1.3E+03
				3.00E-02	X						1.36E+09		1	0.1	Chlorobenzoic Acid, p-	74-11-3					2.3E+03	9.9E+03		1.9E+03
		8.60E-06	C	3.00E-03	P	3.00E-01	P	V		2.90E+02	1.36E+09	6.76E+03	1		Chlorobenzotrifluoride, 4-	98-56-6			2.2E+00	2.2E+00	2.3E+02		2.1E+03	2.1E+02
				4.00E-02	P			V		7.28E+02	1.36E+09	1.76E+03	1		Chlorobutane, 1-	109-69-3					3.1E+03			3.1E+03
						5.00E+01	I	V		1.68E+03	1.36E+09	9.38E+02	1		Chlorodifluoromethane	75-45-6							4.9E+04	4.9E+04
				2.00E-02	P			V		1.11E+05	1.36E+09	7.81E+04	1		Chloroethanol, 2-	107-07-3					1.6E+03			1.6E+03
3.10E-02	C	2.30E-05	I	1.00E-02	I	1.95E-03	T	V		2.54E+03	1.36E+09	2.63E+03	1		Chloroform	67-66-3	2.2E+01		3.2E-01	3.2E-01	7.8E+02		5.3E+00	5.3E+00
						9.00E-02	I	V		1.32E+03	1.36E+09	1.18E+03	1		Chloromethane	74-87-3							1.1E+02	1.1E+02
2.40E+00	C	6.90E-04	C					V		9.32E+03	1.36E+09	5.33E+03	1		Chloromethyl Methyl Ether	107-30-2	2.9E-01		2.2E-02	2.0E-02				
3.00E-01	P			3.00E-03	P	1.00E-05	X				1.36E+09		1	0.1	Chloronitrobenzene, o-	88-73-3	2.3E+00	8.2E+00		1.8E+00	2.3E+02	9.9E+02	1.4E+04	1.9E+02
6.00E-02	P			7.00E-04	P	2.00E-03	P				1.36E+09		1	0.1	Chloronitrobenzene, p-	100-00-5	1.2E+01	4.1E+01		9.0E+00	5.5E+01	2.3E+02	2.8E+06	4.4E+01
				5.00E-03	I			V		2.74E+04	1.36E+09	1.39E+05	1		Chlorophenol, 2-	95-57-8					3.9E+02			3.9E+02
						4.00E-04	C	V		6.17E+02	1.36E+09	4.68E+03	1		Chloropicrin	76-06-2							2.0E+00	2.0E+00
1.70E-02	C			1.50E-02	I						1.36E+09		1	0.1	Chlorothalonil	1897-45-6	4.1E+01	1.5E+02		3.2E+01	1.2E+03	4.9E+03		9.5E+02
				2.00E-02	I			V		9.07E+02	1.36E+09	8.12E+03	1		Chlorotoluene, o-	95-49-8					1.6E+03			1.6E+03
				2.00E-02	X			V		2.53E+02	1.36E+09	7.29E+03	1		Chlorotoluene, p-	106-43-4					1.6E+03			1.6E+03
2.40E+02	C	6.90E-02	C								1.36E+09		1	0.1	Chlorozotocin	54749-90-5	2.9E-03	1.0E-02	5.5E+01	2.3E-03				
				5.00E-03	O						1.36E+09		1	0.1	Chlorpropham	101-21-3					3.9E+02	1.6E+03		3.2E+02
				1.00E-03	A						1.36E+09		1	0.1	Chlorpyrifos	2921-88-2					7.8E+01	3.3E+02		6.3E+01
				1.00E-02	H						1.36E+09		1	0.1	Chlorpyrifos Methyl	5598-13-0					7.8E+02	3.3E+03		6.3E+02
				5.00E-02	O						1.36E+09		1	0.1	Chlorsulfuron	64902-72-3					3.9E+03	1.6E+04		3.2E+03
				1.00E-02	I						1.36E+09		1	0.1	Chlorthal-dimethyl	1861-32-1					7.8E+02	3.3E+03		6.3E+02
				8.00E-04	H						1.36E+09		1	0.1	Chlorthiophos	60238-56-4					6.3E+01	2.6E+02		5.1E+01
						6.00E-05	C				1.36E+09			0.013	Chromium(III) (Soluble Compounds)	16065-83-1							8.5E+04	8.5E+04
				1.50E+00	I						1.36E+09			0.013	Chromium(III), Insoluble Salts	16065-83-1					1.2E+05			1.2E+05
1.60E-01	I	1.10E-02	I	9.00E-04	I	3.00E-05	I		M		1.36E+09			0.025	Chromium(VI)	18540-29-9	9.6E-01		1.3E+02	9.5E-01	7.0E+01		4.3E+04	7.0E+01
											1.36E+09			0.013	Chromium, Total	7440-47-3								
				1.30E-02	I						1.36E+09		1	0.1	Clofentezine	74115-24-5					1.0E+03	4.3E+03		8.2E+02
		9.00E-03	P	3.00E-04	P	6.00E-06	P				1.36E+09		1		Cobalt	7440-48-4			4.2E+02	4.2E+02	2.3E+01		8.5E+03	2.3E+01
		6.20E-04	I					V	M				1		Coke Oven Emissions	E649830								

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				4.00E-02	H						1.36E+09		1		Copper	7440-50-8					3.1E+03			3.1E+03
				5.00E-02	I	6.00E-01	C				1.36E+09		1	0.1	Cresol, m-	108-39-4					3.9E+03	1.6E+04	8.5E+08	3.2E+03
				5.00E-02	I	6.00E-01	C				1.36E+09		1	0.1	Cresol, o-	95-48-7					3.9E+03	1.6E+04	8.5E+08	3.2E+03
				2.00E-02	P	6.00E-01	C				1.36E+09		1	0.1	Cresol, p-	106-44-5					1.6E+03	6.6E+03	8.5E+08	1.3E+03
				1.00E-01	A						1.36E+09		1	0.1	Cresol, p-chloro-m-	59-50-7					7.8E+03	3.3E+04		6.3E+03
				1.00E-01	A	6.00E-01	C				1.36E+09		1	0.1	Cresols	1319-77-3					7.8E+03	3.3E+04	8.5E+08	6.3E+03
1.90E+00	H			1.00E-03	P			V		1.66E+04	1.36E+09	1.89E+04	1		Crotonaldehyde, trans-	123-73-9	3.7E-01			3.7E-01	7.8E+01			7.8E+01
				1.00E-01	I	4.00E-01	I	V		2.68E+02	1.36E+09	6.21E+03	1		Cumene	98-82-8					7.8E+03		2.6E+03	1.9E+03
2.20E-01	C	6.30E-05	C								1.36E+09		1	0.1	Cupferron	135-20-6	3.2E+00	1.1E+01	6.1E+04	2.5E+00				
8.40E-01	H			2.00E-03	H						1.36E+09		1	0.1	Cyanazine	21725-46-2	8.3E-01	2.9E+00		6.5E-01	1.6E+02	6.6E+02		1.3E+02
															Cyanides									
				1.00E-03	I	9.00E-03	C				1.36E+09		1		~Calcium Cyanide	592-01-8					7.8E+01		1.3E+07	7.8E+01
				5.00E-03	I						1.36E+09		1		~Copper Cyanide	544-92-3					3.9E+02			3.9E+02
				6.00E-04	I	8.00E-04	G	V		9.54E+05	1.36E+09	5.89E+04	1		~Cyanide (CN-)	57-12-5					4.7E+01		4.9E+01	2.4E+01
				1.00E-03	I			V			1.36E+09		1		~Cyanogen	460-19-5					7.8E+01			7.8E+01
				9.00E-02	I			V			1.36E+09		1		~Cyanogen Bromide	506-68-3					7.0E+03			7.0E+03
				5.00E-02	I			V			1.36E+09		1		~Cyanogen Chloride	506-77-4					3.9E+03			3.9E+03
				6.00E-04	I	8.00E-04	I	V		1.00E+07	1.36E+09	5.22E+04	1		~Hydrogen Cyanide	74-90-8					4.7E+01		4.4E+01	2.3E+01
				2.00E-03	I	9.00E-03	C				1.36E+09		1		~Potassium Cyanide	151-50-8					1.6E+02		1.3E+07	1.6E+02
				5.00E-03	I						1.36E+09		0.04		~Potassium Silver Cyanide	506-61-6					3.9E+02			3.9E+02
				1.00E-01	I						1.36E+09		0.04		~Silver Cyanide	506-64-9					7.8E+03			7.8E+03
				1.00E-03	I	9.00E-03	C				1.36E+09		1		~Sodium Cyanide	143-33-9					7.8E+01		1.3E+07	7.8E+01
				5.00E-02	I						1.36E+09		1		~Zinc Cyanide	557-21-1					3.9E+03			3.9E+03
						6.00E+00	I	V		1.17E+02	1.36E+09	1.04E+03	1		Cyclohexane	110-82-7							6.5E+03	6.5E+03
2.00E-02	X			2.00E-02	X						1.36E+09		1	0.1	Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	3.5E+01	1.2E+02		2.7E+01	1.6E+03	6.6E+03		1.3E+03
				5.00E+00	I	7.00E-01	P	V		5.11E+03	1.36E+09	4.17E+04	1		Cyclohexanone	108-94-1					3.9E+05		3.0E+04	2.8E+04
				5.00E-03	P	1.00E+00	X	V		2.83E+02	1.36E+09	1.46E+03	1		Cyclohexene	110-83-8					3.9E+02		1.5E+03	3.1E+02
				2.00E-01	I			V		2.93E+05	1.36E+09	7.46E+04	1		Cyclohexylamine	108-91-8					1.6E+04			1.6E+04
				2.50E-02	I						1.36E+09		1	0.1	Cyfluthrin	68359-37-5					2.0E+03	8.2E+03		1.6E+03
				5.00E-01	O						1.36E+09		1	0.1	Cyromazine	66215-27-8					3.9E+04	1.6E+05		3.2E+04
				3.00E-02	I						1.36E+09		1	0.1	Dalapon	75-99-0					2.3E+03	9.9E+03		1.9E+03
1.80E-02	C	5.10E-06	C	1.50E-01	I						1.36E+09		1	0.1	Daminozide	1596-84-5	3.9E+01	1.4E+02	7.5E+05	3.0E+01	1.2E+04	4.9E+04		9.5E+03
7.00E-04	I			7.00E-03	I						1.36E+09		1	0.1	Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	9.9E+02	3.5E+03		7.8E+02	5.5E+02	2.3E+03		4.4E+02
				4.00E-05	I						1.36E+09		1	0.1	Demeton	8065-48-3					3.1E+00	1.3E+01		2.5E+00
1.20E-03	I			6.00E-01	I						1.36E+09		1	0.1	Di(2-ethylhexyl)adipate	103-23-1	5.8E+02	2.1E+03		4.5E+02	4.7E+04	2.0E+05		3.8E+04
6.10E-02	H										1.36E+09		1	0.1	Diallate	2303-16-4	1.1E+01	4.1E+01		8.9E+00				
				7.00E-04	A						1.36E+09		1	0.1	Diazinon	333-41-5					5.5E+01	2.3E+02		4.4E+01
8.00E-01	P	6.00E-03	P	2.00E-04	P	2.00E-04	I	V	M	9.79E+02	1.36E+09	3.20E+04	1		Dibromo-3-chloropropane, 1,2-	96-12-8	1.9E-01		5.4E-03	5.3E-03	1.6E+01		6.7E+00	4.7E+00
2.50E-01	C			3.00E-04	C						1.36E+09		1	0.1	Dibromoacetic acid	631-64-1	2.8E+00	9.9E+00		2.2E+00	2.3E+01	9.9E+01		1.9E+01
				4.00E-04	X			V		1.59E+02	1.36E+09	1.93E+04	1		Dibromobenzene, 1,3-	108-36-1					3.1E+01			3.1E+01
				1.00E-02	I			V			1.36E+09	2.20E+04	1		Dibromobenzene, 1,4-	106-37-6					7.8E+02			7.8E+02
8.40E-02	I			2.00E-02	I			V		8.02E+02	1.36E+09	7.95E+03	1		Dibromochloromethane	124-48-1	8.3E+00			8.3E+00	1.6E+03			1.6E+03
2.00E+00	I	6.00E-04	I	9.00E-03	I	9.00E-03	I	V		1.34E+03	1.36E+09	8.64E+03	1		Dibromoethane, 1,2-	106-93-4	3.5E-01		4.0E-02	3.6E-02	7.0E+02		8.1E+01	7.3E+01
						4.00E-03	X	V		2.82E+03	1.36E+09	5.64E+03	1		Dibromomethane (Methylene Bromide)	74-95-3							2.4E+01	2.4E+01
				3.00E-04	P						1.36E+09		1	0.1	Dibutyltin Compounds	E1790661					2.3E+01	9.9E+01		1.9E+01
				3.00E-02	I						1.36E+09		1	0.1	Dicamba	1918-00-9					2.3E+03	9.9E+03		1.9E+03
											1.36E+09		1	0.1	Dichloramine	3400-09-7								
		4.20E-03	P					V		5.54E+02	1.36E+09	3.21E+03	1		Dichloro-2-butene, 1,4-	764-41-0			2.1E-03	2.1E-03				
		4.20E-03	P					V		5.19E+02	1.36E+09	1.11E+04	1		Dichloro-2-butene, cis-1,4-	1476-11-5			7.4E-03	7.4E-03				
		4.20E-03	P					V		7.60E+02	1.36E+09	1.11E+04	1		Dichloro-2-butene, trans-1,4-	110-57-6			7.4E-03	7.4E-03				
5.00E-02	I			4.00E-03	I						1.36E+09		1	0.1	Dichloroacetic Acid	79-43-6	1.4E+01	4.9E+01		1.1E+01	3.1E+02	1.3E+03		2.5E+02
				9.00E-02	I	2.00E-01	H	V		3.76E+02	1.36E+09	1.17E+04	1		Dichlorobenzene, 1,2-	95-50-1					7.0E+03		2.4E+03	1.8E+03
5.40E-03	C	1.10E-05	C	7.00E-02	A	8.00E-01	I	V			1.36E+09	1.04E+04	1		Dichlorobenzene, 1,4-	106-46-7	1.3E+02		2.7E+00	2.6E+00	5.5E+03		8.7E+03	3.4E+03
4.50E-01	I	3.40E-04	C								1.36E+09		1	0.1	Dichlorobenzidine, 3,3'-	91-94-1	1.5E+00	5.5E+00	1.1E+04	1.2E+00				
				9.00E-03	X						1.36E+09		1	0.1	Dichlorobenzophenone, 4,4'-	90-98-2					7.0E+02	3.0E+03		5.7E+02
				2.00E-01	I	1.00E-01	X	V		8.45E+02	1.36E+09	8.41E+02	1		Dichlorodifluoromethane	75-71-8					1.6E+04		8.8E+01	8.7E+01
2.40E-01	I	6.90E-05	C	5.00E-04	A						1.36E+09		1	0.1	Dichlorodiphenyldichloroethane, p,p'- (DDD)	72-54-8	2.9E+00	1.0E+01	5.5E+04	2.3E+00	3.9E+01	1.6E+02		3.2E+01
3.40E-01	I	9.70E-05	C	5.00E-04	A			V			1.36E+09	2.10E+06	1		Dichlorodiphenyldichloroethylene, p,p'- (DDE)	72-55-9	2.0E+00		6.1E+01	2.0E+00	3.9E+01			3.9E+01
3.40E-01	I	9.70E-05	I	5.00E-04	I						1.36E+09		1	0.03	Dichlorodiphenyltrichloroethane, p,p'- (DDT)	50-29-3	2.0E+00	2.4E+01	3.9E+04	1.9E+00	3.9E+01	5.5E+02		3.7E+01
5.70E-03	C	1.60E-06	C	2.00E-01	P			V		1.69E+03	1.36E+09	2.08E+03	1		Dichloroethane, 1,1-	75-34-3	1.2E+02		3.7E+00	3.6E+00	1.6E+04			1.6E+04
9.10E-02	I	2.60E-05	I	6.00E-03	X	7.00E-03	P	V		2.98E+03	1.36E+09	4.57E+03	1		Dichloroethane, 1,2-	107-06-2	7.6E+00		4.9E-01	4.6E-01	4.7E+02		3.3E+01	3.1E+01
				5.00E-02	I	3.96E-03	A	V		1.19E+03	1.36E+09	1.16E+03	1		Dichloroethylene, 1,1-	75-35-4					3.9E+03		4.8E+00	4.8E+00
				2.00E-03	I	4.00E-02	X	V		2.37E+03	1.36E+09	2.50E+03	1		Dichloroethylene, cis-1,2-	156-59-2					1.6E+02		1.0E+02	6.3E+01
				2.00E-02	I	4.00E-02	X	V		1.85E+03	1.36E+09	1.75E+03	1		Dichloroethylene, trans-1,2-	156-60-5					1.6E+03		7.3E+01	7.0E+01
				3.00E-03	I						1.36E+09		1	0.1	Dichlorophenol, 2,4-	120-83-2					2.3E+02	9.9E+02		1.9E+02
				1.00E-02	I						1.36E+09		1	0.05	Dichlorophenoxy Acetic Acid, 2,4-	94-75-7					7.8E+02	6.6E+03		7.0E+02
3.70E-02	P	3.70E-06	P	4.00E-02	P	4.00E-03	I	V		1.36E+03	1.36E+09	3.79E+03	1		Dichloropropane, 1,2-	78-87-5	1.9E+01		2.9E+00	2.5E+00	3.1E+03		1.6E+01	1.6E+01
				2.00E-02	P			V		1.49E+03	1.36E+09	6.76E+03	1		Dichloropropane, 1,3-	142-28-9					1.6E+03			1.6E+03
				3.00E-03	I						1.36E+09		1	0.1	Dichloropropanol, 2,3-	616-23-9					2.3E+02	9.9E+02		1.9E+02
1.00E-01	I	4.00E-06	I	3.00E-02	I	2.00E-02	I	V		1.57E+03	1.36E+09	3.55E+03	1		Dichloropropene, 1,3-	542-75-6	7.0E+00		2.5E+00	1.8E+00	2.3E+03		7.4E+01	7.2E+01
2.90E-01	I	8.30E-05	C	5.00E-04	I	5.00E-04	I				1.36E+09		1	0.1	Dichlorvos	62-73-7	2.4E+00	8.5E+00	4.6E+04	1.9E+00	3.9E+01	1.6E+02	7.1E+05	3.2E+01
				3.00E-05	O						1.36E+09		1	0.1	Dicrotophos	141-66-2					2.3E+00	9.9E+00		1.9E+00
				8.00E-02	P	3.00E-04	X	V		2.56E+02	1.36E+09	4.11E+03	1		Dicyclopentadiene	77-73-6					6.3E+03		1.3E+00	1.3E+00
1.60E+01	I	4.60E-03	I	5.00E-05	I						1.36E+09		1	0.1	Dieldrin	60-57-1	4.3E-02	1.5E-01	8.3E+02	3.4E-02	3.9E+00	1.6E+01		3.2E+00
		3.00E-04	C			5.00E-03	I							0.1	Diesel Engine Exhaust	E17136615								
				2.00E-03	P	2.00E-04	P				1.36E+09		1	0.1	Diethanolamine	111-42-2					1.6E+02	6.6E+02	2.8E+05	1.3E+02
				3.00E-02	P	1.00E-04	P				1.36E+09		1	0.1	Diethylene Glycol Monobutyl Ether	112-34-5					2.3E+03	9.9E+03	1.4E+05	1.9E+03
				6.00E-02	P	3.00E-04	P				1.36E+09		1	0.1	Diethylene Glycol Monoethyl Ether	111-90-0					4.7E+03	2.0E+04	4.3E+05	3.8E+03
				1.00E-03	P			V		1.12E+05	1.36E+09	1.39E+05	1		Diethylformamide	617-84-5					7.8E+01			7.8E+01
3.50E+02	C	1.00E-01	C								1.36E+09		1	0.1	Diethylstilbestrol	56-53-1	2.0E-03	7.1E-03	3.8E+01	1.6E-03				
				8.30E-02	O						1.36E+09		1	0.1	Difenzoquat	43222-48-6					6.5E+03	2.7E+04		5.2E+03
				2.00E-02	I						1.36E+09		1	0.1	Diflubenzuron	35367-38-5					1.6E+03	6.6E+03		1.3E+03
						4.00E+01	I	V		1.43E+03	1.36E+09	1.15E+03	1		Difluoroethane, 1,1-	75-37-6							4.8E+04	4.8E+04

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
						3.00E+01	X	V		6.91E+02	1.36E+09	7.58E+02	1		Difluoropropane, 2,2-	420-45-1							2.4E+04	2.4E+04
4.40E-02	C	1.30E-05	C					V			1.36E+09	1.23E+05	1		Dihydrosafrole	94-58-6	1.6E+01		2.7E+01	9.9E+00				
						7.00E-01	P	V		2.26E+03	1.36E+09	3.06E+03	1		Diisopropyl Ether	108-20-3							2.2E+03	2.2E+03
				8.00E-02	I			V		5.30E+02	1.36E+09	3.81E+04	1		Diisopropyl Methylphosphonate	1445-75-6					6.3E+03			6.3E+03
				2.18E-02	O						1.36E+09		1	0.1	Dimethipin	55290-64-7					1.7E+03	7.2E+03		1.4E+03
				2.20E-03	O						1.36E+09		1	0.1	Dimethoate	60-51-5					1.7E+02	7.3E+02		1.4E+02
1.60E+00	P								M		1.36E+09		1	0.1	Dimethoxybenzidine, 3,3'-	119-90-4	9.6E-02	3.7E-01		7.6E-02				
				2.00E-02	X	2.00E-04	X	V		5.35E+03	1.36E+09	2.97E+03	1		Dimethyl Sulfide	75-18-3					1.6E+03		6.2E-01	6.2E-01
1.70E-03	P			6.00E-02	P						1.36E+09		1	0.1	Dimethyl methylphosphonate	756-79-6	4.1E+02	1.5E+03		3.2E+02	4.7E+03	2.0E+04		3.8E+03
4.60E+00	C	1.30E-03	C								1.36E+09		1	0.1	Dimethylamino azobenzene [p-]	60-11-7	1.5E-01	5.4E-01	2.9E+03	1.2E-01				
5.80E-01	H										1.36E+09		1	0.1	Dimethylaniline HCl, 2,4-	21436-96-4	1.2E+00	4.3E+00		9.4E-01				
2.00E-01	P			2.00E-03	X						1.36E+09		1	0.1	Dimethylaniline, 2,4-	95-68-1	3.5E+00	1.2E+01		2.7E+00	1.6E+02	6.6E+02		1.3E+02
2.70E-02	P			2.00E-03	I			V		8.30E+02	1.36E+09	3.13E+04	1		Dimethylaniline, N,N-	121-69-7	2.6E+01			2.6E+01	1.6E+02			1.6E+02
1.10E+01	P								M		1.36E+09		1	0.1	Dimethylbenzidine, 3,3'-	119-93-7	1.4E-02	5.4E-02		1.1E-02				
				1.00E-01	P	3.00E-02	I	V		1.06E+05	1.36E+09	1.28E+05	1		Dimethylformamide	68-12-2					7.8E+03		4.0E+03	2.6E+03
				1.00E-04	X	2.00E-06	X	V		1.72E+05	1.36E+09	2.77E+04	1		Dimethylhydrazine, 1,1-	57-14-7					7.8E+00		5.8E-02	5.7E-02
5.50E+02	C	1.60E-01	C					V		1.89E+05	1.36E+09	1.68E+05	1		Dimethylhydrazine, 1,2-	540-73-8	1.3E-03		2.9E-03	8.8E-04				
				2.00E-02	I						1.36E+09		1	0.1	Dimethylphenol, 2,4-	105-67-9					1.6E+03	6.6E+03		1.3E+03
				6.00E-04	I						1.36E+09		1	0.1	Dimethylphenol, 2,6-	576-26-1					4.7E+01	2.0E+02		3.8E+01
				1.00E-03	I						1.36E+09		1	0.1	Dimethylphenol, 3,4-	95-65-8					7.8E+01	3.3E+02		6.3E+01
4.50E-02	C	1.30E-05	C					V		4.73E+02	1.36E+09	5.48E+03	1		Dimethylvinylchloride	513-37-1	1.5E+01		1.2E+00	1.1E+00				
				8.00E-05	X						1.36E+09		1	0.1	Dinitro-o-cresol, 4,6-	534-52-1					6.3E+00	2.6E+01		5.1E+00
				2.00E-03	I						1.36E+09		1	0.1	Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5					1.6E+02	6.6E+02		1.3E+02
				4.00E-04	X	2.00E-03	X				1.36E+09		1	0.1	Dinitroaniline, 3,5-	618-87-1					3.1E+01	1.3E+02	2.8E+06	2.5E+01
				1.00E-04	P						1.36E+09		1	0.1	Dinitrobenzene, 1,2-	528-29-0					7.8E+00	3.3E+01		6.3E+00
				1.00E-04	I						1.36E+09		1	0.1	Dinitrobenzene, 1,3-	99-65-0					7.8E+00	3.3E+01		6.3E+00
				1.00E-04	P						1.36E+09		1	0.1	Dinitrobenzene, 1,4-	100-25-4					7.8E+00	3.3E+01		6.3E+00
				2.00E-03	I						1.36E+09		1	0.1	Dinitrophenol, 2,4-	51-28-5					1.6E+02	6.6E+02		1.3E+02
6.80E-01	I										1.36E+09		1	0.1	Dinitrotoluene Mixture, 2,4/2,6-	E1615210	1.0E+00	3.6E+00		8.0E-01				
3.10E-01	C	8.90E-05	C	2.00E-03	I						1.36E+09		1	0.102	Dinitrotoluene, 2,4-	121-14-2	2.2E+00	7.8E+00	4.3E+04	1.7E+00	1.6E+02	6.5E+02		1.3E+02
1.50E+00	P			3.00E-04	X						1.36E+09		1	0.099	Dinitrotoluene, 2,6-	606-20-2	4.6E-01	1.7E+00		3.6E-01	2.3E+01	1.0E+02		1.9E+01
				1.00E-04	X						1.36E+09		1	0.006	Dinitrotoluene, 2-Amino-4,6-	35572-78-2					7.8E+00	5.5E+02		7.7E+00
				1.00E-04	X						1.36E+09		1	0.009	Dinitrotoluene, 4-Amino-2,6-	19406-51-0					7.8E+00	3.7E+02		7.7E+00
4.50E-01	X			9.00E-04	X						1.36E+09		1	0.1	Dinitrotoluene, Technical grade	25321-14-6	1.5E+00	5.5E+00		1.2E+00	7.0E+01	3.0E+02		5.7E+01
				1.00E-03	I						1.36E+09		1	0.1	Dinoseb	88-85-7					7.8E+01	3.3E+02		6.3E+01
1.00E-01	I	5.00E-06	I	3.00E-02	I	3.00E-02	I	V		1.16E+05	1.36E+09	3.96E+04	1		Dioxane, 1,4-	123-91-1	7.0E+00		2.2E+01	5.3E+00	2.3E+03		1.2E+03	8.1E+02
															Dioxins									
6.20E+03	I	1.30E+00	I								1.36E+09		1	0.03	~Hexachlorodibenzo-p-dioxin, Mixture	34465-46-8	1.1E-04	1.3E-03	2.9E+00	1.0E-04				
1.30E+05	C	3.80E+01	C	7.00E-10	I	4.00E-08	C	V			1.36E+09	1.96E+06	1	0.03	~TCDD, 2,3,7,8-	1746-01-6	5.3E-06	6.3E-05	1.4E-04	4.8E-06	5.5E-05	7.7E-04	8.2E-02	5.1E-05
				3.00E-02	I						1.36E+09		1	0.1	Diphenamid	957-51-7					2.3E+03	9.9E+03		1.9E+03
						4.00E-04	X	V			1.36E+09	8.06E+04	1		Diphenyl Ether	101-84-8							3.4E+01	3.4E+01
				8.00E-04	X						1.36E+09		1	0.1	Diphenyl Sulfone	127-63-9					6.3E+01	2.6E+02		5.1E+01
				1.00E-01	O						1.36E+09		1	0.1	Diphenylamine	122-39-4					7.8E+03	3.3E+04		6.3E+03
8.00E-01	I	2.20E-04	I								1.36E+09		1	0.1	Diphenylhydrazine, 1,2-	122-66-7	8.7E-01	3.1E+00	1.7E+04	6.8E-01				
				2.20E-03	I						1.36E+09		1	0.1	Diquat	2764-72-9					1.7E+02	7.3E+02		1.4E+02
7.40E+00	C	2.10E-03	C								1.36E+09		1	0.1	Direct Black 38	1937-37-7	9.4E-02	3.3E-01	1.8E+03	7.3E-02				
7.40E+00	C	2.10E-03	C								1.36E+09		1	0.1	Direct Blue 6	2602-46-2	9.4E-02	3.3E-01	1.8E+03	7.3E-02				
6.70E+00	C	1.90E-03	C								1.36E+09		1	0.1	Direct Brown 95	16071-86-6	1.0E-01	3.7E-01	2.0E+03	8.1E-02				
				4.00E-05	I						1.36E+09		1	0.1	Disulfoton	298-04-4					3.1E+00	1.3E+01		2.5E+00
				1.00E-02	I			V			1.36E+09	4.54E+04	1		Dithiane, 1,4-	505-29-3					7.8E+02			7.8E+02
				2.00E-03	I						1.36E+09		1	0.1	Diuron	330-54-1					1.6E+02	6.6E+02		1.3E+02
				2.00E-02	O						1.36E+09		1	0.1	Dodine	2439-10-3					1.6E+03	6.6E+03		1.3E+03
				5.00E-02	O			V			1.36E+09	1.17E+05	1		EPTC	759-94-4					3.9E+03			3.9E+03
				6.00E-03	I			V			1.36E+09	4.10E+05	1		Endosulfan	115-29-7					4.7E+02			4.7E+02
				6.00E-03	P						1.36E+09		1	0.1	Endosulfan Sulfate	1031-07-8					4.7E+02	2.0E+03		3.8E+02
				2.00E-02	I						1.36E+09		1	0.1	Endothall	145-73-3					1.6E+03	6.6E+03		1.3E+03
				3.00E-04	I						1.36E+09		1	0.1	Endrin	72-20-8					2.3E+01	9.9E+01		1.9E+01
9.90E-03	I	1.20E-06	I	6.00E-03	P	1.00E-03	I	V		1.05E+04	1.36E+09	1.89E+04	1		Epichlorohydrin	106-89-8	7.0E+01		4.4E+01	2.7E+01	4.7E+02		2.0E+01	1.9E+01
						2.00E-02	I	V		1.53E+04	1.36E+09	7.66E+03	1		Epoxybutane, 1,2-	106-88-7							1.6E+02	1.6E+02
				4.00E-02	P						1.36E+09		1	0.1	Ethanol, 2-(2-methoxyethoxy)-	111-77-3					3.1E+03	1.3E+04		2.5E+03
				5.00E-03	I						1.36E+09		1	0.1	Ethephon	16672-87-0					3.9E+02	1.6E+03		3.2E+02
				5.00E-04	I						1.36E+09		1	0.1	Ethion	563-12-2					3.9E+01	1.6E+02		3.2E+01
				1.00E-01	P	6.00E-02	P	V		2.38E+04	1.36E+09	6.15E+04	1		Ethoxyethanol Acetate, 2-	111-15-9					7.8E+03		3.8E+03	2.6E+03
				9.00E-02	P	4.00E-02	P	V		1.06E+05	1.36E+09	9.84E+04	1		Ethoxyethanol, 2-	110-80-5					7.0E+03		4.1E+03	2.6E+03
				7.00E-01	P	7.00E-02	P	V		1.08E+04	1.36E+09	8.62E+03	1		Ethyl Acetate	141-78-6					5.5E+04		6.3E+02	6.2E+02
				5.00E-03	P	8.00E-03	P	V		2.50E+03	1.36E+09	6.34E+03	1		Ethyl Acrylate	140-88-5					3.9E+02		5.3E+01	4.7E+01
						4.00E+00	P	V		2.12E+03	1.36E+09	1.29E+03	1		Ethyl Chloride (Chloroethane)	75-00-3							5.4E+03	5.4E+03
				2.00E-01	I			V		1.01E+04	1.36E+09	3.12E+03	1		Ethyl Ether	60-29-7					1.6E+04			1.6E+04
						3.00E-01	P	V		1.10E+03	1.36E+09	5.77E+03	1		Ethyl Methacrylate	97-63-2							1.8E+03	1.8E+03
		8.00E-08	I	1.00E+00	I	4.00E+01	I	V		2.87E+03	1.36E+09	3.67E+03	1		Ethyl Tertiary Butyl Ether (ETBE)	637-92-3			1.3E+02	1.3E+02	7.8E+04		1.5E+05	5.2E+04
				1.00E-05	I						1.36E+09		1	0.1	Ethyl-p-nitrophenyl Phosphonate	2104-64-5					7.8E-01	3.3E+00		6.3E-01
1.10E-02	C	2.50E-06	C	5.00E-02	P	1.00E+00	I	V		4.80E+02	1.36E+09	5.67E+03	1		Ethylbenzene	100-41-4	6.3E+01		6.4E+00	5.8E+00	3.9E+03		5.9E+03	2.4E+03
				7.00E-02	P						1.36E+09		1	0.1	Ethylene Cyanohydrin	109-78-4					5.5E+03	2.3E+04		4.4E+03
				9.00E-02	P			V		1.89E+05	1.36E+09	1.80E+05	1		Ethylene Diamine	107-15-3					7.0E+03			7.0E+03
				8.00E-01	A	4.00E-01	C				1.36E+09		1	0.1	Ethylene Glycol	107-21-1					6.3E+04	2.6E+05	5.7E+08	5.1E+04
				1.00E-01	I	1.60E+00	I				1.36E+09		1	0.1	Ethylene Glycol Monobutyl Ether	111-76-2					7.8E+03	3.3E+04	2.3E+09	6.3E+03
3.10E-01	C	3.00E-03	I			3.00E-02	C	V	M	1.21E+05	1.36E+09	6.09E+03	1		Ethylene Oxide	75-21-8	4.9E-01		2.1E-03	2.0E-03			1.9E+02	1.9E+02
4.50E-02	C	1.30E-05	C	8.00E-05	I						1.36E+09		1	0.1	Ethylene Thiourea	96-45-7	1.5E+01	5.5E+01	2.9E+05	1.2E+01	6.3E+00	2.6E+01		5.1E+00
6.50E+01	C	1.90E-02	C					V		1.54E+05	1.36E+09	2.39E+04	1		Ethyleneimine	151-56-4	1.1E-02		3.5E-03	2.7E-03				
				3.00E+00	I						1.36E+09		1	0.1	Ethylphthalyl Ethyl Glycolate	84-72-0					2.3E+05	9.9E+05		1.9E+05
				2.50E-04	I						1.36E+09		1	0.1	Fenamiphos	22224-92-6					2.0E+01	8.2E+01		1.6E+01
				2.50E-02	I						1.36E+09		1	0.1	Fenpropathrin	39515-41-8					2.0E+03	8.2E+03		1.6E+03
				2.50E-02	I						1.36E+09		1	0.1	Fenvalerate	51630-58-1					2.0E+03	8.2E+03		1.6E+03

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information															Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				1.30E-02	I						1.36E+09		1	0.1	Fluometuron	2164-17-2					1.0E+03	4.3E+03		8.2E+02
				4.00E-02	C	1.30E-02	C				1.36E+09		1		Fluoride	16984-48-8					3.1E+03		1.8E+07	3.1E+03
				6.00E-02	I	1.30E-02	C				1.36E+09		1		Fluorine (Soluble Fluoride)	7782-41-4					4.7E+03		1.8E+07	4.7E+03
				8.00E-02	I						1.36E+09		1	0.1	Fluridone	59756-60-4					6.3E+03	2.6E+04		5.1E+03
				4.00E-02	O						1.36E+09		1	0.1	Flurprimidol	56425-91-3					3.1E+03	1.3E+04		2.5E+03
				2.00E-03	O						1.36E+09		1	0.1	Flusilazole	85509-19-9					1.6E+02	6.6E+02		1.3E+02
				5.00E-01	O						1.36E+09		1	0.1	Flutolanil	66332-96-5					3.9E+04	1.6E+05		3.2E+04
				1.00E-02	I						1.36E+09		1	0.1	Fluvalinate	69409-94-5					7.8E+02	3.3E+03		6.3E+02
				9.00E-02	O						1.36E+09		1	0.1	Folpet	133-07-3					7.0E+03	3.0E+04		5.7E+03
				1.00E-02	O						1.36E+09		1	0.1	Fomesafen	72178-02-0					7.8E+02	3.3E+03		6.3E+02
				2.00E-03	I						1.36E+09		1	0.1	Fonofos	944-22-9					1.6E+02	6.6E+02		1.3E+02
2.10E-02	C	7.40E-06	I	2.00E-01	I	7.00E-03	I	V	M	4.24E+04	1.36E+09	7.77E+04	1		Formaldehyde	50-00-0	7.3E+00		1.1E+01	4.3E+00	1.6E+04		5.7E+02	5.5E+02
				9.00E-01	P	3.00E-04	X	V		1.06E+05	1.36E+09	9.30E+04	1		Formic Acid	64-18-6					7.0E+04		2.9E+01	2.9E+01
				2.50E+00	O						1.36E+09		1	0.1	Fosetyl-AL	39148-24-8					2.0E+05	8.2E+05		1.6E+05
															Furans									
				1.00E-03	X			V			1.36E+09	1.56E+05	1		~Dibenzofuran	132-64-9					7.8E+01			7.8E+01
				1.00E-03	I			V		6.22E+03	1.36E+09	2.62E+03	1		~Furan	110-00-9					7.8E+01			7.8E+01
				9.00E-01	I	2.00E+00	I	V		1.65E+05	1.36E+09	1.20E+04	1		~Tetrahydrofuran	109-99-9					7.0E+04		2.5E+04	1.8E+04
3.80E+00	H										1.36E+09		1	0.1	Furazolidone	67-45-8	1.8E-01	6.5E-01		1.4E-01				
				3.00E-03	I	5.00E-02	H	V		1.01E+04	1.36E+09	4.86E+04	1		Furfural	98-01-1					2.3E+02		2.5E+03	2.1E+02
1.50E+00	C	4.30E-04	C								1.36E+09		1	0.1	Furium	531-82-8	4.6E-01	1.6E+00	8.9E+03	3.6E-01				
3.00E-02	I	8.60E-06	C								1.36E+09		1	0.1	Furmecyclox	60568-05-0	2.3E+01	8.2E+01	4.4E+05	1.8E+01				
				6.00E-03	O						1.36E+09		1	0.1	Glufosinate, Ammonium	77182-82-2					4.7E+02	2.0E+03		3.8E+02
				1.00E-01	A	8.00E-05	C				1.36E+09		1	0.1	Glutaraldehyde	111-30-8					7.8E+03	3.3E+04	1.1E+05	6.0E+03
				4.00E-04	I	1.00E-03	X	V		1.06E+05	1.36E+09	8.43E+04	1		Glycidaldehyde	765-34-4					3.1E+01		8.8E+01	2.3E+01
				1.00E-01	I						1.36E+09		1	0.1	Glyphosate	1071-83-6					7.8E+03	3.3E+04		6.3E+03
				1.00E-02	X			V			1.36E+09	1.45E+05	1		Guanidine	113-00-8					7.8E+02			7.8E+02
				2.00E-02	P						1.36E+09		1	0.1	Guanidine Chloride	50-01-1					1.6E+03	6.6E+03		1.3E+03
				3.00E-02	X						1.36E+09		1	0.1	Guanidine Nitrate	506-93-4					2.3E+03	9.9E+03		1.9E+03
				5.00E-05	I						1.36E+09		1	0.1	Haloxyfop, Methyl	69806-40-2					3.9E+00	1.6E+01		3.2E+00
4.50E+00	I	1.30E-03	I	1.00E-04	A			V			1.36E+09	4.79E+05	1		Heptachlor	76-44-8	1.5E-01		1.0E+00	1.3E-01	7.8E+00			7.8E+00
9.10E+00	I	2.60E-03	I	1.30E-05	I			V			1.36E+09	8.43E+05	1		Heptachlor Epoxide	1024-57-3	7.6E-02		9.1E-01	7.0E-02	1.0E+00			1.0E+00
						3.00E-03	X	V		2.09E+02	1.36E+09	7.80E+03	1		Heptanal, n-	111-71-7							2.4E+01	2.4E+01
				3.00E-04	X	4.00E-01	P	V		5.79E+01	1.36E+09	8.95E+02	1		Heptane, N-	142-82-5					2.3E+01		3.7E+02	2.2E+01
				2.00E-03	I			V			1.36E+09	3.80E+05	1		Hexabromobenzene	87-82-1					1.6E+02			1.6E+02
				2.00E-04	I						1.36E+09		1	0.1	Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2					1.6E+01	6.6E+01		1.3E+01
1.60E+00	I	4.60E-04	I	1.00E-05	P			V			1.36E+09	6.80E+04	1		Hexachlorobenzene	118-74-1	4.3E-01		4.1E-01	2.1E-01	7.8E-01			7.8E-01
7.80E-02	I	2.20E-05	I	1.00E-03	P			V		1.68E+01	1.36E+09	1.08E+04	1		Hexachlorobutadiene	87-68-3	8.9E+00		1.4E+00	1.2E+00	7.8E+01			7.8E+01
6.30E+00	I	1.80E-03	I	9.00E-04	A						1.36E+09		1	0.1	Hexachlorocyclohexane, Alpha-	319-84-6	1.1E-01	3.9E-01	2.1E+03	8.6E-02	7.0E+01	3.0E+02		5.7E+01
1.80E+00	I	5.30E-04	I								1.36E+09		1	0.1	Hexachlorocyclohexane, Beta-	319-85-7	3.9E-01	1.4E+00	7.2E+03	3.0E-01				
				6.00E-08	X						1.36E+09		1	0.1	Hexachlorocyclohexane, Delta-	319-86-8					4.7E-03	2.0E-02		3.8E-03
1.10E+00	C	3.10E-04	C	8.00E-07	A						1.36E+09		1	0.04	Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	6.3E-01	5.6E+00	1.2E+04	5.7E-01	6.3E-02	6.6E-01		5.7E-02
1.80E+00	I	5.10E-04	I								1.36E+09		1	0.1	Hexachlorocyclohexane, Technical	608-73-1	3.9E-01	1.4E+00	7.5E+03	3.0E-01				
				6.00E-03	I	2.00E-04	I	V		1.57E+01	1.36E+09	8.51E+03	1		Hexachlorocyclopentadiene	77-47-4					4.7E+02		1.8E+00	1.8E+00
4.00E-02	I	1.10E-05	C	7.00E-04	I	3.00E-02	I	V			1.36E+09	8.01E+03	1		Hexachloroethane	67-72-1	1.7E+01		2.0E+00	1.8E+00	5.5E+01		2.5E+02	4.5E+01
				3.00E-04	I						1.36E+09		1	0.1	Hexachlorophene	70-30-4					2.3E+01	9.9E+01		1.9E+01
8.00E-02	I			4.00E-03	I						1.36E+09		1	0.015	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	8.7E+00	2.1E+02		8.3E+00	3.1E+02	8.8E+03		3.0E+02
						1.00E-05	I	V		3.39E+03	1.36E+09	3.00E+05	1		Hexamethylene Diisocyanate, 1,6-	822-06-0							3.1E+00	3.1E+00
						4.00E-04	C				1.36E+09		1	0.1	Hexamethylene diisocyanate biuret	4035-89-6							5.7E+05	5.7E+05
						4.00E-04	C				1.36E+09		1	0.1	Hexamethylene diisocyanate isocyanurate	3779-63-3							5.7E+05	5.7E+05
				4.00E-04	P						1.36E+09		1	0.1	Hexamethylphosphoramide	680-31-9					3.1E+01	1.3E+02		2.5E+01
		2.00E-07	X			6.00E-01	P	V		1.41E+02	1.36E+09	8.29E+02	1		Hexane, Commercial	E5241997			1.2E+01	1.2E+01			5.2E+02	5.2E+02
						7.00E-01	I	V		1.41E+02	1.36E+09	8.29E+02	1		Hexane, N-	110-54-3							6.1E+02	6.1E+02
				2.00E+00	P						1.36E+09		1	0.1	Hexanedioic Acid	124-04-9					1.6E+05	6.6E+05		1.3E+05
9.50E-03	P			7.00E-02	P	4.00E-04	P	V		2.74E+02	1.36E+09	3.62E+04	1		Hexanol, 1-,2-ethyl- (2-Ethyl-1-hexanol)	104-76-7	7.3E+01			7.3E+01	5.5E+03		1.5E+01	1.5E+01
				5.00E-03	I	3.00E-02	I	V		3.28E+03	1.36E+09	1.33E+04	1		Hexanone, 2-	591-78-6					3.9E+02		4.2E+02	2.0E+02
				3.30E-02	I						1.36E+09		1	0.1	Hexazinone	51235-04-2					2.6E+03	1.1E+04		2.1E+03
				2.50E-02	I						1.36E+09		1	0.1	Hexythiazox	78587-05-0					2.0E+03	8.2E+03		1.6E+03
				1.70E-02	O						1.36E+09		1	0.1	Hydramethylnon	67485-29-4					1.3E+03	5.6E+03		1.1E+03
3.00E+00	I	4.90E-03	I			3.00E-05	P	V		1.12E+05	1.36E+09	6.52E+04	1		Hydrazine	302-01-2	2.3E-01		3.7E-02	3.2E-02			2.0E+00	2.0E+00
3.00E+00	I	4.90E-03	I								1.36E+09		1		Hydrazine Sulfate	10034-93-2	2.3E-01		7.8E+02	2.3E-01				
						2.00E-02	I	V			1.36E+09		1		Hydrogen Chloride	7647-01-0							2.8E+07	2.8E+07
				4.00E-02	C	1.40E-02	C	V			1.36E+09		1		Hydrogen Fluoride	7664-39-3					3.1E+03		2.0E+07	3.1E+03
						2.00E-03	I	V			1.36E+09		1		Hydrogen Sulfide	7783-06-4							2.8E+06	2.8E+06
6.00E-02	P			4.00E-02	P						1.36E+09		1	0.1	Hydroquinone	123-31-9	1.2E+01	4.1E+01		9.0E+00	3.1E+03	1.3E+04		2.5E+03
6.11E-02	O			1.08E-01	O						1.36E+09		1	0.1	Imazalil	35554-44-0	1.1E+01	4.0E+01		8.9E+00	8.4E+03	3.6E+04		6.8E+03
				2.50E-01	I						1.36E+09		1	0.1	Imazaquin	81335-37-7					2.0E+04	8.2E+04		1.6E+04
				2.50E+00	O						1.36E+09		1	0.1	Imazethapyr	81335-77-5					2.0E+05	8.2E+05		1.6E+05
				1.00E-02	A						1.36E+09		1		Iodine	7553-56-2					7.8E+02			7.8E+02
				4.00E-02	I						1.36E+09		1	0.1	Iprodione	36734-19-7					3.1E+03	1.3E+04		2.5E+03
				7.00E-01	P						1.36E+09		1		Iron	7439-89-6					5.5E+04			5.5E+04
				3.00E-01	I	4.00E-01	X	V		1.00E+04	1.36E+09	2.81E+04	1		Isobutyl Alcohol	78-83-1					2.3E+04		1.2E+04	7.8E+03
9.50E-04	I			2.00E-01	I	2.00E+00	C				1.36E+09		1	0.1	Isophorone	78-59-1	7.3E+02	2.6E+03		5.7E+02	1.6E+04	6.6E+04	2.8E+09	1.3E+04
				1.50E-02	I			V			1.36E+09	4.20E+05	1		Isopropalin	33820-53-0					1.2E+03			1.2E+03
				2.00E+00	P	2.00E-01	P	V		1.09E+05	1.36E+09	2.77E+04	1		Isopropanol	67-63-0					1.6E+05		5.8E+03	5.6E+03
				1.00E-01	I						1.36E+09		1	0.1	Isopropyl Methyl Phosphonic Acid	1832-54-8					7.8E+03	3.3E+04		6.3E+03
				4.00E-03	X	4.00E-02	X	V		1.62E+02	1.36E+09	8.53E+03	1		Isopropyltoluene, p-	99-87-6					3.1E+02		3.6E+02	1.7E+02
				5.00E-02	I						1.36E+09		1	0.1	Isoxaben	82558-50-7					3.9E+03	1.6E+04		3.2E+03
						3.00E-01	A	V			1.36E+09		1		Jet propulsion fuel 7 (JP-7)	E1737665							4.3E+08	4.3E+08
				8.00E-03	O						1.36E+09		1	0.1	Lactofen	77501-63-4					6.3E+02	2.6E+03		5.1E+02
				2.00E-04	X						1.36E+09		1	0.1	Lactonitrile	78-97-7					1.6E+01	6.6E+01		1.3E+01
				5.00E-05	P						1.36E+09		1		Lanthanum	7439-91-0					3.9E+00			3.9E+00
				2.08E-05	P						1.36E+09		1	0.1	Lanthanum Acetate Hydrate	100587-90-4					1.6E+00	6.9E+00		1.3E+00

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				1.87E-05	P						1.36E+09		1		Lanthanum Chloride Heptahydrate	10025-84-0					1.5E+00			1.5E+00
				2.83E-05	P						1.36E+09		1		Lanthanum Chloride, Anhydrous	10099-58-8					2.2E+00			2.2E+00
				1.60E-05	P						1.36E+09		1		Lanthanum Nitrate Hexahydrate	10277-43-7					1.3E+00			1.3E+00
															Lead Compounds										
8.50E-03	C	1.20E-05	C								1.36E+09		1		~Lead Phosphate	7446-27-7	8.2E+01		3.2E+05	8.2E+01				
2.10E-01	C	8.00E-05	C								1.36E+09		1	0.1	~Lead acetate	301-04-2	3.3E+00	1.2E+01	4.8E+04	2.6E+00				
											1.36E+09		1		~Lead and Compounds	7439-92-1								2.0E+02
											1.36E+09		1		~Lead and Compounds (with other sources of lead present, see Guidance)	7439-92-1								1.0E+02
3.80E-02	C	1.10E-05	C								1.36E+09		1	0.1	~Lead subacetate	1335-32-6	1.8E+01	6.5E+01	3.5E+05	1.4E+01				
				1.00E-07	I			V		2.43E+00	1.36E+09	1.91E+03	1		~Tetraethyl Lead	78-00-2					7.8E-03			7.8E-03
				5.00E-06	P			V		3.83E+02	1.36E+09	2.55E+04	1		Lewisite	541-25-3					3.9E-01			3.9E-01
				7.70E-03	O						1.36E+09		1	0.1	Linuron	330-55-2					6.0E+02	2.5E+03		4.9E+02
				2.00E-03	P						1.36E+09		1		Lithium	7439-93-2					1.6E+02			1.6E+02
				5.00E-04	I						1.36E+09		1	0.1	MCPA	94-74-6					3.9E+01	1.6E+02		3.2E+01
				4.40E-02	O						1.36E+09		1	0.1	MCPB	94-81-5					3.4E+03	1.5E+04		2.8E+03
				1.00E-03	I						1.36E+09		1	0.1	MCPP	93-65-2					7.8E+01	3.3E+02		6.3E+01
				2.00E-02	I						1.36E+09		1	0.1	Malathion	121-75-5					1.6E+03	6.6E+03		1.3E+03
				1.00E-01	I	7.00E-04	C				1.36E+09		1	0.1	Maleic Anhydride	108-31-6					7.8E+03	3.3E+04	9.9E+05	6.3E+03
				5.00E-01	I						1.36E+09		1	0.1	Maleic Hydrazide	123-33-1					3.9E+04	1.6E+05		3.2E+04
				1.00E-04	P						1.36E+09		1	0.1	Malononitrile	109-77-3					7.8E+00	3.3E+01		6.3E+00
				3.00E-02	H						1.36E+09		1	0.1	Mancozeb	8018-01-7					2.3E+03	9.9E+03		1.9E+03
				5.00E-03	I						1.36E+09		1	0.1	Maneb	12427-38-2					3.9E+02	1.6E+03		3.2E+02
				1.40E-01	I	5.00E-05	I						1		Manganese (Diet)	7439-96-5								
				2.40E-02	G	5.00E-05	I				1.36E+09		0.04		Manganese (Non-diet)	7439-96-5					1.9E+03		7.1E+04	1.8E+03
				9.00E-05	H						1.36E+09		1	0.1	Mephosfolan	950-10-7					7.0E+00	3.0E+01		5.7E+00
				3.00E-02	I						1.36E+09		1	0.1	Mepiquat Chloride	24307-26-4					2.3E+03	9.9E+03		1.9E+03
1.10E-02	P			4.00E-03	P						1.36E+09		1	0.1	Mercaptobenzothiazole, 2-	149-30-4	6.3E+01	2.2E+02		4.9E+01	3.1E+02	1.3E+03		2.5E+02
															Mercury Compounds									
				3.00E-04	I	3.00E-04	G				1.36E+09		0.07		~Mercuric Chloride (and other Mercury salts)	7487-94-7					2.3E+01		4.3E+05	2.3E+01
						3.00E-04	I	V		3.13E+00	1.36E+09	2.27E+04	1		~Mercury (elemental)	7439-97-6							7.1E+00	7.1E+00
				1.00E-04	I						1.36E+09		1		~Methyl Mercury	22967-92-6					7.8E+00			7.8E+00
				8.00E-05	I						1.36E+09		1	0.1	~Phenylmercuric Acetate	62-38-4					6.3E+00	2.6E+01		5.1E+00
				3.00E-05	I			V			1.36E+09	1.94E+06	1		Merphos	150-50-5					2.3E+00			2.3E+00
				6.00E-02	I						1.36E+09		1	0.1	Metalaxyl	57837-19-1					4.7E+03	2.0E+04		3.8E+03
				1.00E-04	I	3.00E-02	P	V		4.58E+03	1.36E+09	6.79E+03	1		Methacrylonitrile	126-98-7					7.8E+00		2.1E+02	7.5E+00
				5.00E-05	I						1.36E+09		1	0.1	Methamidophos	10265-92-6					3.9E+00	1.6E+01		3.2E+00
				2.00E+00	I	2.00E+01	I	V		1.06E+05	1.36E+09	2.90E+04	1		Methanol	67-56-1					1.6E+05		6.1E+05	1.2E+05
				1.50E-03	O						1.36E+09		1	0.1	Methidathion	950-37-8					1.2E+02	4.9E+02		9.5E+01
				2.50E-02	I						1.36E+09		1	0.1	Methomyl	16752-77-5					2.0E+03	8.2E+03		1.6E+03
4.90E-02	C										1.36E+09		1	0.1	Methoxy-5-nitroaniline, 2-	99-59-2	1.4E+01	5.0E+01		1.1E+01				
				5.00E-03	I						1.36E+09		1	0.1	Methoxychlor	72-43-5					3.9E+02	1.6E+03		3.2E+02
				8.00E-03	P	1.00E-03	P	V		1.15E+05	1.36E+09	1.24E+05	1		Methoxyethanol Acetate, 2-	110-49-6					6.3E+02		1.3E+02	1.1E+02
				5.00E-03	P	7.00E-03	P	V		1.06E+05	1.36E+09	1.01E+05	1		Methoxyethanol, 2-	109-86-4					3.9E+02		7.4E+02	2.6E+02
				1.00E+00	X			V		2.90E+04	1.36E+09	8.12E+03	1		Methyl Acetate	79-20-9					7.8E+04			7.8E+04
						2.00E-02	P	V		6.75E+03	1.36E+09	6.97E+03	1		Methyl Acrylate	96-33-3							1.5E+02	1.5E+02
				6.00E-01	I	5.00E+00	I	V		2.84E+04	1.36E+09	1.22E+04	1		Methyl Ethyl Ketone (2-Butanone)	78-93-3					4.7E+04		6.4E+04	2.7E+04
		1.00E-03	X	1.00E-03	P	2.00E-05	X	V		1.80E+05	1.36E+09	5.04E+04	1		Methyl Hydrazine	60-34-4			1.4E-01	1.4E-01	7.8E+01		1.1E+00	1.0E+00
						3.00E+00	I	V		3.36E+03	1.36E+09	1.06E+04	1		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1							3.3E+04	3.3E+04
						1.00E-03	C	V		1.01E+04	1.36E+09	4.42E+03	1		Methyl Isocyanate	624-83-9							4.6E+00	4.6E+00
				1.40E+00	I	7.00E-01	I	V		2.36E+03	1.36E+09	6.33E+03	1		Methyl Methacrylate	80-62-6					1.1E+05		4.6E+03	4.4E+03
				2.50E-04	I						1.36E+09		1	0.1	Methyl Parathion	298-00-0					2.0E+01	8.2E+01		1.6E+01
				6.00E-02	X						1.36E+09		1	0.1	Methyl Phosphonic Acid	993-13-5					4.7E+03	2.0E+04		3.8E+03
				6.00E-03	H	4.00E-02	H	V		3.93E+02	1.36E+09	2.43E+04	1		Methyl Styrene (Mixed Isomers)	25013-15-4					4.7E+02		1.0E+03	3.2E+02
9.90E-02	C	2.80E-05	C								1.36E+09		1	0.1	Methyl methanesulfonate	66-27-3	7.0E+00	2.5E+01	1.4E+05	5.5E+00				
1.80E-03	C	2.60E-07	C			3.00E+00	I	V		8.87E+03	1.36E+09	4.90E+03	1		Methyl tert-Butyl Ether (MTBE)	1634-04-4	3.9E+02		5.3E+01	4.7E+01			1.5E+04	1.5E+04
				3.00E-04	X						1.36E+09		1	0.1	Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2					2.3E+01	9.9E+01		1.9E+01
						3.00E+00	X	V		2.45E+03	1.36E+09	1.72E+04	1		Methyl-2-Pentanol, 4-	108-11-2							5.4E+04	5.4E+04
9.00E-03	P			2.00E-02	X						1.36E+09		1	0.1	Methyl-5-Nitroaniline, 2-	99-55-8	7.7E+01	2.7E+02		6.0E+01	1.6E+03	6.6E+03		1.3E+03
8.30E+00	C	2.40E-03	C								1.36E+09		1	0.1	Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	8.4E-02	3.0E-01	1.6E+03	6.5E-02				
1.30E-01	C	3.70E-05	C								1.36E+09		1	0.1	Methylaniline Hydrochloride, 2-	636-21-5	5.3E+00	1.9E+01	1.0E+05	4.2E+00				
				1.00E-02	A						1.36E+09		1	0.1	Methylarsonic acid	124-58-3					7.8E+02	3.3E+03		6.3E+02
				2.00E-04	X						1.36E+09		1	0.1	Methylbenzene,1-4-diamine monohydrochloride, 2-	74612-12-7					1.6E+01	6.6E+01		1.3E+01
1.00E-01	X			3.00E-04	X						1.36E+09		1	0.1	Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	7.0E+00	2.5E+01		5.4E+00	2.3E+01	9.9E+01		1.9E+01
2.20E+01	C	6.30E-03	C						M		1.36E+09		1	0.1	Methylcholanthrene, 3-	56-49-5	7.0E-03	2.7E-02	2.2E+02	5.5E-03				
						9.50E-02	X	V		6.76E+01	1.36E+09	9.90E+02	1		Methylcyclohexane	108-87-2							9.8E+01	9.8E+01
2.00E-03	I	1.00E-08	I	6.00E-03	I	6.00E-01	I	V	M	3.32E+03	1.36E+09	2.19E+03	1		Methylene Chloride	75-09-2	7.7E+01		2.2E+02	5.7E+01	4.7E+02		1.4E+03	3.5E+02
1.00E-01	P	4.30E-04	C	2.00E-03	P				M		1.36E+09		1	0.1	Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.5E+00	6.0E+00	3.2E+03	1.2E+00	1.6E+02	6.6E+02		1.3E+02
4.60E-02	I	1.30E-05	C								1.36E+09		1	0.1	Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	1.5E+01	5.4E+01	2.9E+05	1.2E+01				
1.60E+00	C	4.60E-04	C			2.00E-02	C				1.36E+09		1	0.1	Methylenebisbenzenamine, 4,4'-	101-77-9	4.3E-01	1.5E+00	8.3E+03	3.4E-01			2.8E+07	2.8E+07
						6.00E-04	I				1.36E+09		1	0.1	Methylenediphenyl Diisocyanate	101-68-8							8.5E+05	8.5E+05
				7.00E-02	H			V		5.00E+02	1.36E+09	1.28E+04	1		Methylstyrene, Alpha-	98-83-9					5.5E+03			5.5E+03
				1.50E-01	I						1.36E+09		1	0.1	Metolachlor	51218-45-2					1.2E+04	4.9E+04		9.5E+03
				2.50E-02	I						1.36E+09		1	0.1	Metribuzin	21087-64-9					2.0E+03	8.2E+03		1.6E+03
				2.50E-01	I						1.36E+09		1	0.1	Metsulfuron-methyl	74223-64-6					2.0E+04	8.2E+04		1.6E+04
		4.50E-06	X	1.00E-02	X	1.00E-01	P	V		6.86E+00	1.36E+09	1.04E+03	1		Midrange Aliphatic Hydrocarbon Streams	E1790669			6.5E-01	6.5E-01	7.8E+02		1.1E+02	9.6E+01
				3.00E+00	P			V		3.42E-01	1.36E+09	1.38E+03	1		Mineral oils	8012-95-1					2.3E+05			2.3E+05
1.80E+01	C	5.10E-03	C	2.00E-04	I			V			1.36E+09	8.58E+05	1		Mirex	2385-85-5	3.9E-02		4.7E-01	3.6E-02	1.6E+01			1.6E+01
				2.00E-03	I						1.36E+09		1	0.1	Molinate	2212-67-1					1.6E+02	6.6E+02		1.3E+02
				5.00E-03	I	2.00E-03	A				1.36E+09		1		Molybdenum	7439-98-7					3.9E+02		2.8E+06	3.9E+02
				1.00E-01	I						1.36E+09		1		Monochloramine	10599-90-3					7.8E+03			7.8E+03
				2.00E-03	P						1.36E+09		1	0.1	Monomethylaniline	100-61-8					1.6E+02	6.6E+02		1.3E+02
				2.50E-02	I						1.36E+09		1	0.1	Myclobutanil	88671-89-0					2.0E+03	8.2E+03		1.6E+03
				3.00E-04	X						1.36E+09		1	0.1	N,N'-Diphenyl-1,4-benzenediamine	74-31-7					2.3E+01	9.9E+01		1.9E+01

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				2.00E-03	I			V			1.36E+09	5.70E+04	1		Naled	300-76-5					1.6E+02			1.6E+02
				3.00E-02	X	1.00E-01	P	V			1.36E+09		1		Naphtha, High Flash Aromatic (HFAN)	64742-95-6					2.3E+03		1.4E+08	2.3E+03
1.80E+00	C	0.00E+00	C								1.36E+09		1	0.1	Naphthylamine, 2-	91-59-8	3.9E-01	1.4E+00		3.0E-01				
				1.20E-01	O						1.36E+09		1	0.1	Napropamide	15299-99-7					9.4E+03	4.0E+04		7.6E+03
		2.60E-04	C	1.10E-02	C	1.40E-05	C				1.36E+09		1	0.1	Nickel Acetate	373-02-4			1.5E+04	1.5E+04	8.6E+02	3.6E+03	2.0E+04	6.7E+02
		2.60E-04	C	1.10E-02	C	1.40E-05	C				1.36E+09		1	0.1	Nickel Carbonate	3333-67-3			1.5E+04	1.5E+04	8.6E+02	3.6E+03	2.0E+04	6.7E+02
		2.60E-04	C	1.10E-02	C	1.40E-05	C	V			1.36E+09		1		Nickel Carbonyl	13463-39-3			1.5E+04	1.5E+04	8.6E+02		2.0E+04	8.2E+02
		2.60E-04	C	1.10E-02	C	1.40E-05	C				1.36E+09		0.04		Nickel Hydroxide	12054-48-7			1.5E+04	1.5E+04	8.6E+02		2.0E+04	8.2E+02
		2.60E-04	C	1.10E-02	C	2.00E-05	C				1.36E+09		0.04		Nickel Oxide	1313-99-1			1.5E+04	1.5E+04	8.6E+02		2.8E+04	8.4E+02
		2.40E-04	I	1.10E-02	C	1.40E-05	C				1.36E+09		0.04		Nickel Refinery Dust	E715532			1.6E+04	1.6E+04	8.6E+02		2.0E+04	8.2E+02
		2.60E-04	C	2.00E-02	I	1.00E-05	T				1.36E+09		0.04		Nickel Soluble Salts	7440-02-0			1.5E+04	1.5E+04	1.6E+03		1.4E+04	1.4E+03
1.70E+00	C	4.80E-04	I	1.10E-02	C	1.40E-05	C				1.36E+09		0.04		Nickel Subsulfide	12035-72-2	4.1E-01		8.0E+03	4.1E-01	8.6E+02		2.0E+04	8.2E+02
9.10E-01	C	2.60E-04	C	1.10E-02	C	1.40E-05	C				1.36E+09		1	0.1	Nickelocene	1271-28-9	7.6E-01	2.7E+00	1.5E+04	6.0E-01	8.6E+02	3.6E+03	2.0E+04	6.7E+02
				1.60E+00	I						1.36E+09		1		Nitrate (measured as nitrogen)	14797-55-8					1.3E+05			1.3E+05
											1.36E+09		1		Nitrate + Nitrite (measured as nitrogen)	E701177								
				1.00E-01	I						1.36E+09		1		Nitrite (measured as nitrogen)	14797-65-0					7.8E+03			7.8E+03
				1.00E-02	X	5.00E-05	X				1.36E+09		1	0.1	Nitroaniline, 2-	88-74-4					7.8E+02	3.3E+03	7.1E+04	6.3E+02
2.00E-02	P			4.00E-03	P	6.00E-03	P				1.36E+09		1	0.1	Nitroaniline, 4-	100-01-6	3.5E+01	1.2E+02		2.7E+01	3.1E+02	1.3E+03	8.5E+06	2.5E+02
		4.00E-05	I	2.00E-03	I	9.00E-03	I	V		3.05E+03	1.36E+09	7.32E+04	1		Nitrobenzene	98-95-3			5.1E+00	5.1E+00	1.6E+02		6.9E+02	1.3E+02
				3.00E+03	P						1.36E+09		1	0.1	Nitrocellulose	9004-70-0					2.3E+08	9.9E+08		1.9E+08
				7.00E-02	H						1.36E+09		1	0.1	Nitrofurantoin	67-20-9					5.5E+03	2.3E+04		4.4E+03
1.30E+00	C	3.70E-04	C								1.36E+09		1	0.1	Nitrofurazone	59-87-0	5.3E-01	1.9E+00	1.0E+04	4.2E-01				
1.70E-02	P			1.00E-04	P						1.36E+09		1	0.1	Nitroglycerin	55-63-0	4.1E+01	1.5E+02		3.2E+01	7.8E+00	3.3E+01		6.3E+00
				1.00E-01	I						1.36E+09		1	0.1	Nitroguanidine	556-88-7					7.8E+03	3.3E+04		6.3E+03
		8.80E-06	P			5.00E-03	P	V		1.80E+04	1.36E+09	1.69E+04	1		Nitromethane	75-52-5			5.4E+00	5.4E+00			8.8E+01	8.8E+01
		5.80E-04	X			2.00E-02	I	V		4.86E+03	1.36E+09	1.31E+04	1		Nitropropane, 2-	79-46-9			6.4E-02	6.4E-02			2.7E+02	2.7E+02
2.70E+01	C	7.70E-03	C						M		1.36E+09		1	0.1	Nitroso-N-ethylurea, N-	759-73-9	5.7E-03	2.2E-02	1.8E+02	4.5E-03				
1.20E+02	C	3.40E-02	C						M		1.36E+09		1	0.1	Nitroso-N-methylurea, N-	684-93-5	1.3E-03	5.0E-03	4.1E+01	1.0E-03				
5.40E+00	I	1.60E-03	I					V			1.36E+09	2.43E+05	1		Nitrosodibutylamine, N-	924-16-3	1.3E-01		4.3E-01	9.9E-02				
2.80E+00	I	8.00E-04	C								1.36E+09		1	0.1	Nitrosodiethanolamine, N-	1116-54-7	2.5E-01	8.8E-01	4.8E+03	1.9E-01				
1.50E+02	I	4.30E-02	I						M		1.36E+09		1	0.1	Nitrosodiethylamine, N-	55-18-5	1.0E-03	4.0E-03	3.2E+01	8.1E-04				
5.10E+01	I	1.40E-02	I	8.00E-06	P	4.00E-05	X	V	M	2.37E+05	1.36E+09	8.23E+04	1		Nitrosodimethylamine, N-	62-75-9	3.0E-03		6.0E-03	2.0E-03	6.3E-01		3.4E+00	5.3E-01
4.90E-03	I	2.60E-06	C								1.36E+09		1	0.1	Nitrosodiphenylamine, N-	86-30-6	1.4E+02	5.0E+02	1.5E+06	1.1E+02				
7.00E+00	I	2.00E-03	C								1.36E+09		1	0.1	Nitrosodipropylamine, N-	621-64-7	9.9E-02	3.5E-01	1.9E+03	7.8E-02				
2.20E+01	I	6.30E-03	C					V		1.08E+05	1.36E+09	1.21E+05	1		Nitrosomethylethylamine, N-	10595-95-6	3.2E-02		5.4E-02	2.0E-02				
6.70E+00	C	1.90E-03	C								1.36E+09		1	0.1	Nitrosomorpholine [N-]	59-89-2	1.0E-01	3.7E-01	2.0E+03	8.1E-02				
9.40E+00	C	2.70E-03	C								1.36E+09		1	0.1	Nitrosopiperidine [N-]	100-75-4	7.4E-02	2.6E-01	1.4E+03	5.8E-02				
2.10E+00	I	6.10E-04	I								1.36E+09		1	0.1	Nitrosopyrrolidine, N-	930-55-2	3.3E-01	1.2E+00	6.3E+03	2.6E-01				
				1.00E-04	X						1.36E+09		1	0.1	Nitrotoluene, m-	99-08-1					7.8E+00	3.3E+01		6.3E+00
2.20E-01	P			9.00E-04	P			V		1.51E+03	1.36E+09	1.37E+05	1		Nitrotoluene, o-	88-72-2	3.2E+00			3.2E+00	7.0E+01			7.0E+01
1.60E-02	P			4.00E-03	P						1.36E+09		1	0.1	Nitrotoluene, p-	99-99-0	4.3E+01	1.5E+02		3.4E+01	3.1E+02	1.3E+03		2.5E+02
				3.00E-04	X	2.00E-02	P	V		6.86E+00	1.36E+09	1.04E+03	1		Nonane, n-	111-84-2					2.3E+01		2.2E+01	1.1E+01
				1.50E-03	O						1.36E+09		1	0.1	Norflurazon	27314-13-2					1.2E+02	4.9E+02		9.5E+01
				3.00E-03	I						1.36E+09		1	0.1	Octabromodiphenyl Ether	32536-52-0					2.3E+02	9.9E+02		1.9E+02
				5.00E-02	I						1.36E+09		1	0.006	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0					3.9E+03	2.7E+05		3.9E+03
				2.00E-03	H						1.36E+09		1	0.1	Octamethylpyrophosphoramide	152-16-9					1.6E+02	6.6E+02		1.3E+02
7.79E-03	O			1.90E-01	O						1.36E+09		1	0.1	Oryzalin	19044-88-3	8.9E+01	3.2E+02		7.0E+01	1.5E+04	6.3E+04		1.2E+04
				5.00E-03	I						1.36E+09		1	0.1	Oxadiazon	19666-30-9					3.9E+02	1.6E+03		3.2E+02
				2.50E-02	I						1.36E+09		1	0.1	Oxamyl	23135-22-0					2.0E+03	8.2E+03		1.6E+03
7.32E-02	O			4.00E-02	O						1.36E+09		1	0.1	Oxyfluorfen	42874-03-3	9.5E+00	3.4E+01		7.4E+00	3.1E+03	1.3E+04		2.5E+03
				1.30E-02	I						1.36E+09		1	0.1	Paclobutrazol	76738-62-0					1.0E+03	4.3E+03		8.2E+02
				4.50E-03	I						1.36E+09		1	0.1	Paraquat Dichloride	1910-42-5					3.5E+02	1.5E+03		2.8E+02
				6.00E-03	H						1.36E+09		1	0.1	Parathion	56-38-2					4.7E+02	2.0E+03		3.8E+02
				5.00E-02	H			V			1.36E+09	4.49E+04	1		Pebulate	1114-71-2					3.9E+03			3.9E+03
				3.00E-01	O						1.36E+09		1	0.1	Pendimethalin	40487-42-1					2.3E+04	9.9E+04		1.9E+04
				2.00E-03	I			V		3.12E-01	1.36E+09	5.13E+05	1		Pentabromodiphenyl Ether	32534-81-9					1.6E+02			1.6E+02
				1.00E-04	I						1.36E+09		1	0.1	Pentabromodiphenyl ether, 2,2',4,4',5- (BDE-99)	60348-60-9					7.8E+00	3.3E+01		6.3E+00
				8.00E-04	I			V			1.36E+09	8.12E+04	1		Pentachlorobenzene	608-93-5					6.3E+01			6.3E+01
9.00E-02	P							V		4.57E+02	1.36E+09	9.65E+03	1		Pentachloroethane	76-01-7	7.7E+00			7.7E+00				
2.60E-01	H			3.00E-03	I			V			1.36E+09	4.32E+05	1		Pentachloronitrobenzene	82-68-8	2.7E+00			2.7E+00	2.3E+02			2.3E+02
4.00E-01	I	5.10E-06	C	5.00E-03	I						1.36E+09		1	0.25	Pentachlorophenol	87-86-5	1.7E+00	2.5E+00	7.5E+05	1.0E+00	3.9E+02	6.6E+02		2.5E+02
4.30E-03	X			9.00E-03	P						1.36E+09		1	0.1	Pentaerythritol tetranitrate (PETN)	78-11-5	1.6E+02	5.7E+02		1.3E+02	7.0E+02	3.0E+03		5.7E+02
				1.00E-04	X						1.36E+09		1	0.1	Pentamethylphosphoramide (PMPA)	10159-46-3					7.8E+00	3.3E+01		6.3E+00
						1.00E+00	P	V		3.88E+02	1.36E+09	7.79E+02	1		Pentane, n-	109-66-0							8.1E+02	8.1E+02
															Per- and Polyfluoroalkyl Substances (PFAS)									
				3.00E-06	D						1.36E+09		1	0.1	~Ammonium perfluoro-2-methyl-3-oxahexanoate	62037-80-3					2.3E-01	9.9E-01		1.9E-01
				1.00E-03	I			V		2.68E+02	1.36E+09	5.98E+04	1		~Ammonium perfluorobutanoate	10495-86-0					7.8E+01			7.8E+01
				2.07E-09	I						1.36E+09		1	0.1	~Ammonium perfluorodecanoate	3108-42-7					1.6E-04	6.8E-04		1.3E-04
				5.00E-04	I						1.36E+09		1	0.1	~Ammonium perfluorohexanoate	21615-47-4					3.9E+01	1.6E+02		3.2E+01
2.93E+04	D			3.00E-08	D						1.36E+09		1	0.1	~Ammonium perfluorooctanoate	3825-26-1	2.4E-05	8.4E-05		1.9E-05	2.3E-03	9.9E-03		1.9E-03
				3.00E-04	R			V			1.36E+09	5.53E+04	1		~Bis(trifluoromethylsulfonyl)amine (TFSI)	82113-65-3					2.3E+01			2.3E+01
				3.00E-06	D			V		1.92E+06	1.36E+09	4.97E+04	1		~Hexafluoropropylene oxide dimer acid (HFPO-DA)	13252-13-6					2.3E-01			2.3E-01
				3.00E-04	R			V			1.36E+09	5.41E+04	1		~Lithium bis[(trifluoromethyl)sulfonyl]azanide	90076-65-6					2.3E+01			2.3E+01
				3.00E-06	D			V		1.92E+06	1.36E+09	4.97E+04	1		~Perfluoro(2-propoxypropanoate)	122499-17-6					2.3E-01			2.3E-01
				3.00E-04	P						1.36E+09		1	0.1	~Perfluorobutanesulfonate	45187-15-3					2.3E+01	9.9E+01		1.9E+01
				3.00E-04	P						1.36E+09		1	0.1	~Perfluorobutanesulfonic acid (PFBS)	375-73-5					2.3E+01	9.9E+01		1.9E+01
				1.00E-03	I			V		2.56E+03	1.36E+09	5.85E+04	1		~Perfluorobutanoate	45048-62-2					7.8E+01			7.8E+01
				1.00E-03	I			V		2.57E+03	1.36E+09	3.06E+04	1		~Perfluorobutanoic acid (PFBA)	375-22-4					7.8E+01			7.8E+01
				2.00E-09	I						1.36E+09		1	0.1	~Perfluorodecanoate	73829-36-4					1.6E-04	6.6E-04		1.3E-04
				2.00E-09	I						1.36E+09		1	0.1	~Perfluorodecanoic acid (PFDA)	335-76-2					1.6E-04	6.6E-04		1.3E-04
				5.00E-05	N						1.36E+09		1	0.1	~Perfluorododecanoic acid (PFDoDA)	307-55-1					3.9E+00	1.6E+01		3.2E+00
				2.00E-05	A						1.36E+09		1	0.1	~Perfluorohexanesulfonate	108427-53-8					1.6E+00	6.6E+00		1.3E+00
				2.00E-05	A						1.36E+09		1	0.1	~Perfluorohexanesulfonic acid (PFHxS)	355-46-4					1.6E+00	6.6E+00		1.3E+00

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information														Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				5.00E-04	I						1.36E+09		1	0.1	~Perfluorohexanoate	92612-52-7					3.9E+01	1.6E+02		3.2E+01
				5.00E-04	I						1.36E+09		1	0.1	~Perfluorohexanoic acid (PFHxA)	307-24-4					3.9E+01	1.6E+02		3.2E+01
				3.00E-06	A						1.36E+09		1	0.1	~Perfluorononanoate	72007-68-2					2.3E-01	9.9E-01		1.9E-01
				3.00E-06	A						1.36E+09		1	0.1	~Perfluorononanoic acid (PFNA)	375-95-1					2.3E-01	9.9E-01		1.9E-01
				4.00E-02	N						1.36E+09		1	0.1	~Perfluorooctadecanoic acid (PFODA)	16517-11-6					3.1E+03	1.3E+04		2.5E+03
3.95E+01	D			1.00E-07	D						1.36E+09		1	0.1	~Perfluorooctanesulfonate	45298-90-6	1.8E-02	6.3E-02		1.4E-02	7.8E-03	3.3E-02		6.3E-03
3.95E+01	D			1.00E-07	D						1.36E+09		1	0.1	~Perfluorooctanesulfonic acid (PFOS)	1763-23-1	1.8E-02	6.3E-02		1.4E-02	7.8E-03	3.3E-02		6.3E-03
2.93E+04	D			3.00E-08	D						1.36E+09		1	0.1	~Perfluorooctanoate	45285-51-6	2.4E-05	8.4E-05		1.9E-05	2.3E-03	9.9E-03		1.9E-03
2.93E+04	D			3.00E-08	D						1.36E+09		1	0.1	~Perfluorooctanoic acid (PFOA)	335-67-1	2.4E-05	8.4E-05		1.9E-05	2.3E-03	9.9E-03		1.9E-03
				5.00E-04	R			V		1.36E+04	1.36E+09	2.65E+04	1		~Perfluoropropanoic acid (PFPrA)	422-64-0					3.9E+01			3.9E+01
				1.00E-03	N						1.36E+09		1	0.1	~Perfluorotetradecanoic acid (PFTetDA)	376-06-7					7.8E+01	3.3E+02		6.3E+01
				3.00E-04	N						1.36E+09		1	0.1	~Perfluoroundecanoic acid (PFUDA)	2058-94-8					2.3E+01	9.9E+01		1.9E+01
				3.00E-04	P						1.36E+09		1	0.1	~Potassium perfluorobutanesulfonate	29420-49-3					2.3E+01	9.9E+01		1.9E+01
				2.00E-03	I			V		9.61E+04	1.36E+09	6.13E+04	1		~Potassium perfluorobutanoate	2966-54-3					1.6E+02			1.6E+02
				2.15E-09	I						1.36E+09		1	0.1	~Potassium perfluorodecanoate	51604-85-4					1.7E-04	7.1E-04		1.4E-04
3.95E+01	D			1.00E-07	D						1.36E+09		1	0.1	~Potassium perfluorooctanesulfonate	2795-39-3	1.8E-02	6.3E-02		1.4E-02	7.8E-03	3.3E-02		6.3E-03
				1.00E-03	I			V		8.99E+04	1.36E+09	6.02E+04	1		~Sodium perfluorobutanoate	2218-54-4					7.8E+01			7.8E+01
				2.09E-09	I						1.36E+09		1	0.1	~Sodium perfluorodecanoate	3830-45-3					1.6E-04	6.9E-04		1.3E-04
				5.00E-04	I						1.36E+09		1	0.1	~Sodium perfluorohexanoate	2923-26-4					3.9E+01	1.6E+02		3.2E+01
															Perchlorates									
				7.00E-04	I						1.36E+09		1		~Ammonium Perchlorate	7790-98-9					5.5E+01			5.5E+01
				7.00E-04	I						1.36E+09		1		~Lithium Perchlorate	7791-03-9					5.5E+01			5.5E+01
				7.00E-04	I						1.36E+09		1		~Perchlorate and Perchlorate Salts	14797-73-0					5.5E+01			5.5E+01
				7.00E-04	I						1.36E+09		1		~Potassium Perchlorate	7778-74-7					5.5E+01			5.5E+01
				7.00E-04	I						1.36E+09		1		~Sodium Perchlorate	7601-89-0					5.5E+01			5.5E+01
				5.00E-02	I						1.36E+09		1	0.1	Permethrin	52645-53-1					3.9E+03	1.6E+04		3.2E+03
2.20E-03	C	6.30E-07	C								1.36E+09		1	0.1	Phenacetin	62-44-2	3.2E+02	1.1E+03	6.1E+06	2.5E+02				
				2.40E-01	O						1.36E+09		1	0.1	Phenmedipham	13684-63-4					1.9E+04	7.9E+04		1.5E+04
				3.00E-01	I	2.00E-01	C				1.36E+09		1	0.1	Phenol	108-95-2					2.3E+04	9.9E+04	2.8E+08	1.9E+04
				4.00E-03	I						1.36E+09		1	0.1	Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1					3.1E+02	1.3E+03		2.5E+02
				5.00E-04	X						1.36E+09		1	0.1	Phenothiazine	92-84-2					3.9E+01	1.6E+02		3.2E+01
				2.00E-04	X			V		1.29E+02	1.36E+09	7.06E+03	1		Phenyl Isothiocyanate	103-72-0					1.6E+01			1.6E+01
				6.00E-03	I						1.36E+09		1	0.1	Phenylenediamine, m-	108-45-2					4.7E+02	2.0E+03		3.8E+02
1.20E-01	P			4.00E-03	P				M		1.36E+09		1	0.1	Phenylenediamine, o-	95-54-5	1.3E+00	5.0E+00		1.0E+00	3.1E+02	1.3E+03		2.5E+02
				1.00E-03	X						1.36E+09		1	0.1	Phenylenediamine, p-	106-50-3					7.8E+01	3.3E+02		6.3E+01
1.94E-03	H										1.36E+09		1	0.1	Phenylphenol, 2-	90-43-7	3.6E+02	1.3E+03		2.8E+02				
				2.00E-04	H						1.36E+09		1	0.1	Phorate	298-02-2					1.6E+01	6.6E+01		1.3E+01
						3.00E-04	I	V		1.61E+03	1.36E+09	9.81E+02	1		Phosgene	75-44-5							3.1E-01	3.1E-01
				2.00E-02	I						1.36E+09		1	0.1	Phosmet	732-11-6					1.6E+03	6.6E+03		1.3E+03
															Phosphates, Inorganic									
				2.93E+00	X						1.36E+09		1		~Aluminum metaphosphate	13776-88-0					2.3E+05			2.3E+05
				3.00E-01	X						1.36E+09		1		~Aluminum salts of inorganic phosphates	E524680405					2.3E+04			2.3E+04
				1.00E+00	P						1.36E+09		1		~Dipotassium phosphate	7758-11-4					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Disodium phosphate	7558-79-4					7.8E+04			7.8E+04
				3.54E+00	X						1.36E+09		1		~Monoaluminum phosphate	13530-50-2					2.8E+05			2.8E+05
				1.00E+00	P						1.36E+09		1		~Monopotassium phosphate	7778-77-0					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Monosodium phosphate	7558-80-7					7.8E+04			7.8E+04
				1.00E+00	P	1.00E-02	I				1.36E+09		1		~Phosphoric Acid	7664-38-2					7.8E+04		1.4E+07	7.8E+04
				1.36E+00	X						1.36E+09		1	0.1	~Phosphoric acid, aluminum salt (1:1) [aluminum phosphate]	7784-30-7					1.1E+05	4.5E+05		8.6E+04
				4.26E+00	X						1.36E+09		1		~Phosphoric acid, aluminum sodium salt (1:X:X) [sodium aluminum phosphate acidic (acidic SALP)]	7785-88-8					3.3E+05			3.3E+05
				1.00E+00	P						1.36E+09		1		~Polyphosphoric acid	8017-16-1					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Potassium salts of inorganic phosphates	E524680403					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Potassium tripolyphosphate	13845-36-8					7.8E+04			7.8E+04
				4.99E+00	X						1.36E+09		1		~Sodium aluminum phosphate (anhydrous)	10279-59-1					3.9E+05			3.9E+05
				3.52E+00	X						1.36E+09		1		~Sodium aluminum phosphate (tetrahydrate)	10305-76-7					2.8E+05			2.8E+05
				1.00E+00	P						1.36E+09		1		~Sodium hexametaphosphate	10124-56-8					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Sodium polyphosphate	68915-31-1					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Sodium pyrophosphate	7758-16-9					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Sodium salts of inorganic phosphates	E524680404					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Sodium trimetaphosphate	7785-84-4					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Sodium tripolyphosphate	7758-29-4					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Tetrapotassium phosphate	7320-34-5					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Tetrasodium pyrophosphate	7722-88-5					7.8E+04			7.8E+04
				3.25E+00	X						1.36E+09		1		~Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	15136-87-5					2.5E+05			2.5E+05
				3.13E+00	X						1.36E+09		1	0.1	~Triphosphoric acid, aluminum salt (1:1) [aluminum triphosphate]	13939-25-8					2.4E+05	1.0E+06		2.0E+05
				1.00E+00	P						1.36E+09		1		~Tripotassium phosphate	7778-53-2					7.8E+04			7.8E+04
				1.00E+00	P						1.36E+09		1		~Trisodium phosphate	7601-54-9					7.8E+04			7.8E+04
				3.00E-04	I	3.00E-04	I	V			1.36E+09		1		Phosphine	7803-51-2					2.3E+01		4.3E+05	2.3E+01
				2.00E-05	I			V			1.36E+09	6.72E+03	1		Phosphorus	7723-14-0					1.6E+00			1.6E+00
				2.00E-05	G			V			1.36E+09	1.14E+04	1		Phosphorus, white	12185-10-3					1.6E+00			1.6E+00
															Phthalates									
1.40E-02	I	2.40E-06	C	2.00E-02	I						1.36E+09		1	0.1	~Bis(2-ethylhexyl)phthalate	117-81-7	5.0E+01	1.8E+02	1.6E+06	3.9E+01	1.6E+03	6.6E+03		1.3E+03
1.90E-03	P			2.00E-01	I						1.36E+09		1	0.1	~Butyl Benzyl Phthalate	85-68-7	3.7E+02	1.3E+03		2.9E+02	1.6E+04	6.6E+04		1.3E+04
				1.00E+00	I						1.36E+09		1	0.1	~Butylphthalyl Butylglycolate	85-70-1					7.8E+04	3.3E+05		6.3E+04
				1.00E-01	I						1.36E+09		1	0.1	~Dibutyl Phthalate	84-74-2					7.8E+03	3.3E+04		6.3E+03
				8.00E-01	I						1.36E+09		1	0.1	~Diethyl Phthalate	84-66-2					6.3E+04	2.6E+05		5.1E+04
				1.00E-01	I			V			1.36E+09	2.13E+04	1		~Dimethylterephthalate	120-61-6					7.8E+03			7.8E+03
				1.00E-02	P						1.36E+09		1	0.1	~Octyl Phthalate, di-N-	117-84-0					7.8E+02	3.3E+03		6.3E+02
				5.00E-01	X						1.36E+09		1	0.1	~Phthalic Acid, p-	100-21-0					3.9E+04	1.6E+05		3.2E+04
				2.00E+00	I	2.00E-02	C				1.36E+09		1	0.1	~Phthalic Anhydride	85-44-9					1.6E+05	6.6E+05	2.8E+07	1.3E+05
				7.00E-02	I						1.36E+09		1	0.1	Picloram	1918-02-1					5.5E+03	2.3E+04		4.4E+03
				1.00E-04	X						1.36E+09		1	0.1	Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3					7.8E+00	3.3E+01		6.3E+00
				2.00E-03	X						1.36E+09		1	0.1	Picric Acid (2,4,6-Trinitrophenol)	88-89-1					1.6E+02	6.6E+02		1.3E+02

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO $(mg/kg\text{-}day)^{-1}$	key	IUR $(ug/m^3)^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				7.30E-04	O						1.36E+09		1	0.1	Pirimiphos, Methyl	29232-93-7					5.7E+01	2.4E+02		4.6E+01
3.00E+01	C	8.60E-03	C	7.00E-06	H						1.36E+09		1	0.1	Polybrominated Biphenyls	36355-01-8	2.3E-02	8.2E-02	4.4E+02	1.8E-02	5.5E-01	2.3E+00		4.4E-01
															Polychlorinated Biphenyls (PCBs)									
7.00E-02	G	2.00E-05	G	7.00E-05	I			V			1.36E+09	5.86E+05	1	0.14	~Aroclor 1016	12674-11-2	9.9E+00	2.5E+01	8.2E+01	6.6E+00	5.5E+00	1.6E+01		4.1E+00
2.00E+00	G	5.71E-04	G					V			1.36E+09	2.04E+05	1	0.14	~Aroclor 1221	11104-28-2	3.5E-01	8.8E-01	1.0E+00	2.0E-01				
2.00E+00	G	5.71E-04	G					V			1.36E+09	1.12E+05	1	0.14	~Aroclor 1232	11141-16-5	3.5E-01	8.8E-01	5.5E-01	1.7E-01				
2.00E+00	G	5.71E-04	G					V			1.36E+09	5.91E+05	1	0.14	~Aroclor 1242	53469-21-9	3.5E-01	8.8E-01	2.9E+00	2.3E-01				
2.00E+00	G	5.71E-04	G					V			1.36E+09	5.14E+05	1	0.14	~Aroclor 1248	12672-29-6	3.5E-01	8.8E-01	2.5E+00	2.3E-01				
2.00E+00	G	5.71E-04	G	2.00E-05	I			V			1.36E+09	8.43E+05	1	0.14	~Aroclor 1254	11097-69-1	3.5E-01	8.8E-01	4.1E+00	2.4E-01	1.6E+00	4.7E+00		1.2E+00
2.00E+00	G	5.71E-04	G					V			1.36E+09	1.31E+06	1	0.14	~Aroclor 1260	11096-82-5	3.5E-01	8.8E-01	6.5E+00	2.4E-01				
				6.00E-04	X			V			1.36E+09	1.15E+06	1	0.14	~Aroclor 5460	11126-42-4					4.7E+01	1.4E+02		3.5E+01
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	2.43E+06	1	0.14	~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	1.8E-01	4.5E-01	6.0E+00	1.3E-01	1.8E+00	5.5E+00	3.4E+03	1.4E+00
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	1.58E+06	1	0.14	~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	1.8E-01	4.5E-01	3.9E+00	1.2E-01	1.8E+00	5.5E+00	2.2E+03	1.4E+00
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	1.04E+06	1	0.14	~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	1.8E-01	4.5E-01	2.6E+00	1.2E-01	1.8E+00	5.5E+00	1.4E+03	1.4E+00
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	1.11E+06	1	0.14	~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	1.8E-01	4.5E-01	2.7E+00	1.2E-01	1.8E+00	5.5E+00	1.5E+03	1.4E+00
3.90E+03	W	1.14E+00	W	2.33E-08	W	1.33E-06	W	V			1.36E+09	1.58E+06	1	0.14	~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	1.8E-04	4.5E-04	3.9E-03	1.2E-04	1.8E-03	5.5E-03	2.2E+00	1.4E-03
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	7.33E+05	1	0.14	~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	1.8E-01	4.5E-01	1.8E+00	1.2E-01	1.8E+00	5.5E+00	1.0E+03	1.4E+00
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	5.90E+05	1	0.14	~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	1.8E-01	4.5E-01	1.5E+00	1.2E-01	1.8E+00	5.5E+00	8.2E+02	1.4E+00
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	6.01E+05	1	0.14	~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	1.8E-01	4.5E-01	1.5E+00	1.2E-01	1.8E+00	5.5E+00	8.4E+02	1.4E+00
3.90E+00	W	1.14E-03	W	2.33E-05	W	1.33E-03	W	V			1.36E+09	1.05E+06	1	0.14	~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	1.8E-01	4.5E-01	2.6E+00	1.2E-01	1.8E+00	5.5E+00	1.5E+03	1.4E+00
1.30E+04	W	3.80E+00	W	7.00E-09	W	4.00E-07	W	V			1.36E+09	7.26E+05	1	0.14	~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	5.3E-05	1.4E-04	5.4E-04	3.6E-05	5.5E-04	1.6E-03	3.0E-01	4.1E-04
2.00E+00	I	5.71E-04	I					V			1.36E+09	5.32E+05	1	0.14	~Polychlorinated Biphenyls (high risk)	1336-36-3	3.5E-01	8.8E-01	2.6E+00	2.3E-01				
4.00E-01	I	1.00E-04	I					V					1	0.14	~Polychlorinated Biphenyls (low risk)	1336-36-3								
7.00E-02	I	2.00E-05	I					V					1	0.14	~Polychlorinated Biphenyls (lowest risk)	1336-36-3								
1.30E+01	W	3.80E-03	W	7.00E-06	W	4.00E-04	W				1.36E+09		1	0.14	~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	5.3E-02	1.4E-01	1.0E+03	3.8E-02	5.5E-01	1.6E+00	5.7E+05	4.1E-01
3.90E+01	W	1.14E-02	W	2.33E-06	W	1.33E-04	W	V			1.36E+09	5.09E+05	1	0.14	~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	1.8E-02	4.5E-02	1.3E-01	1.2E-02	1.8E-01	5.5E-01	7.1E+01	1.4E-01
						6.00E-04	I				1.36E+09		1	0.1	Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9							8.5E+05	8.5E+05
															Polynuclear Aromatic Hydrocarbons (PAHs)									
				6.00E-02	I			V			1.36E+09	1.41E+05	1	0.13	~Acenaphthene	83-32-9					4.7E+03	1.5E+04		3.6E+03
				3.00E-01	I			V			1.36E+09	5.23E+05	1	0.13	~Anthracene	120-12-7					2.3E+04	7.6E+04		1.8E+04
1.00E-01	E	6.00E-05	E					V	M		1.36E+09	4.41E+06	1	0.13	~Benz[a]anthracene	56-55-3	1.5E+00	4.6E+00	7.4E+01	1.1E+00				
1.00E+00	I	6.00E-04	I	3.00E-04	I	2.00E-06	I		M		1.36E+09		1	0.13	~Benzo[a]pyrene	50-32-8	1.5E-01	4.6E-01	2.3E+03	1.1E-01	2.3E+01	7.6E+01	2.8E+03	1.8E+01
1.00E-01	E	6.00E-05	E						M		1.36E+09		1	0.13	~Benzo[b]fluoranthene	205-99-2	1.5E+00	4.6E+00	2.3E+04	1.1E+00				
				9.00E-05	X	2.00E-06	X				1.36E+09		1	0.1	~Benzo[e]pyrene	192-97-2					7.0E+00	3.0E+01	2.8E+03	5.7E+00
1.20E+00	C	1.10E-04	C								1.36E+09		1	0.13	~Benzo[j]fluoranthene	205-82-3	5.8E-01	1.6E+00	3.5E+04	4.2E-01				
1.00E-02	E	6.00E-06	E						M		1.36E+09		1	0.13	~Benzo[k]fluoranthene	207-08-9	1.5E+01	4.6E+01	2.3E+05	1.1E+01				
				5.00E-03	X						1.36E+09		1	0.1	~Benzofluorene, 2,3-	243-17-4					3.9E+02	1.6E+03		3.2E+02
				8.00E-02	I			V			1.36E+09	7.99E+04	1	0.13	~Chloronaphthalene, Beta-	91-58-7					6.3E+03	2.0E+04		4.8E+03
1.00E-03	E	6.00E-07	E						M		1.36E+09		1	0.13	~Chrysene	218-01-9	1.5E+02	4.6E+02	2.3E+06	1.1E+02				
1.00E+00	E	6.00E-04	E						M		1.36E+09		1	0.13	~Dibenz[a,h]anthracene	53-70-3	1.5E-01	4.6E-01	2.3E+03	1.1E-01				
1.20E+01	C	1.10E-03	C								1.36E+09		1	0.13	~Dibenzo[a,e]pyrene	192-65-4	5.8E-02	1.6E-01	3.5E+03	4.2E-02				
2.50E+02	C	7.10E-02	C						M		1.36E+09		1	0.13	~Dimethylbenz[a]anthracene, 7,12-	57-97-6	6.1E-04	1.8E-03	1.9E+01	4.6E-04				
				4.00E-02	I						1.36E+09		1	0.13	~Fluoranthene	206-44-0					3.1E+03	1.0E+04		2.4E+03
				4.00E-02	I			V			1.36E+09	2.81E+05	1	0.13	~Fluorene	86-73-7					3.1E+03	1.0E+04		2.4E+03
1.00E-01	E	6.00E-05	E						M		1.36E+09		1	0.13	~Indeno[1,2,3-cd]pyrene	193-39-5	1.5E+00	4.6E+00	2.3E+04	1.1E+00				
5.10E-02	X			7.00E-02	T	3.00E-06	P	V		3.94E+02	1.36E+09	5.86E+04	1	0.13	~Methylnaphthalene, 1-	90-12-0	1.4E+01	3.7E+01		1.0E+01	5.5E+03	1.8E+04	1.8E-01	1.8E-01
				4.00E-03	I			V			1.36E+09	5.80E+04	1	0.13	~Methylnaphthalene, 2-	91-57-6					3.1E+02	1.0E+03		2.4E+02
1.20E-01	C	3.40E-05	C	2.00E-02	I	3.00E-03	I	V			1.36E+09	4.63E+04	1	0.13	~Naphthalene	91-20-3	5.8E+00	1.6E+01	3.8E+00	2.0E+00	1.6E+03	5.1E+03	1.4E+02	1.3E+02
1.20E+00	C	1.10E-04	C								1.36E+09		1	0.13	~Nitropyrene, 4-	57835-92-4	5.8E-01	1.6E+00	3.5E+04	4.2E-01				
				9.00E-05	X	2.00E-06	X				1.36E+09		1	0.13	~Perylene	198-55-0					7.0E+00	2.3E+01	2.8E+03	5.4E+00
				3.00E-02	I			V			1.36E+09	2.38E+06	1	0.13	~Pyrene	129-00-0					2.3E+03	7.6E+03		1.8E+03
1.50E-01	I			9.00E-03	I						1.36E+09		1	0.1	Prochloraz	67747-09-5	4.6E+00	1.6E+01		3.6E+00	7.0E+02	3.0E+03		5.7E+02
				6.00E-03	H			V			1.36E+09	4.20E+05	1		Profluralin	26399-36-0					4.7E+02			4.7E+02
				1.50E-02	I						1.36E+09		1	0.1	Prometon	1610-18-0					1.2E+03	4.9E+03		9.5E+02
				4.00E-02	O						1.36E+09		1	0.1	Prometryn	7287-19-6					3.1E+03	1.3E+04		2.5E+03
				7.50E-02	I						1.36E+09		1	0.1	Pronamide	23950-58-5					5.9E+03	2.5E+04		4.7E+03
				1.30E-02	I						1.36E+09		1	0.1	Propachlor	1918-16-7					1.0E+03	4.3E+03		8.2E+02
				5.00E-03	I						1.36E+09		1	0.1	Propanil	709-98-8					3.9E+02	1.6E+03		3.2E+02
1.92E-01	O			4.00E-02	O						1.36E+09		1	0.1	Propargite	2312-35-8	3.6E+00	1.3E+01		2.8E+00	3.1E+03	1.3E+04		2.5E+03
				2.00E-03	I			V		1.11E+05	1.36E+09	6.27E+04	1		Propargyl Alcohol	107-19-7					1.6E+02			1.6E+02
				2.00E-02	I						1.36E+09		1	0.1	Propazine	139-40-2					1.6E+03	6.6E+03		1.3E+03
				2.00E-02	I						1.36E+09		1	0.1	Propham	122-42-9					1.6E+03	6.6E+03		1.3E+03
				1.00E-01	O						1.36E+09		1	0.1	Propiconazole	60207-90-1					7.8E+03	3.3E+04		6.3E+03
						8.00E-03	I	V		3.26E+04	1.36E+09	8.94E+03	1		Propionaldehyde	123-38-6							7.5E+01	7.5E+01
				1.00E-01	X	1.00E+00	X	V		2.64E+02	1.36E+09	6.99E+03	1		Propyl benzene	103-65-1					7.8E+03		7.3E+03	3.8E+03
						3.00E+00	C	V		3.49E+02	1.36E+09	7.04E+02	1		Propylene	115-07-1							2.2E+03	2.2E+03
				2.00E+01	P						1.36E+09		1	0.1	Propylene Glycol	57-55-6					1.6E+06	6.6E+06		1.3E+06
						2.72E-04	A				1.36E+09		1	0.1	Propylene Glycol Dinitrate	6423-43-4							3.9E+05	3.9E+05
				7.00E-01	H	2.00E+00	I	V		1.06E+05	1.36E+09	7.83E+04	1		Propylene Glycol Monomethyl Ether	107-98-2					5.5E+04		1.6E+05	4.1E+04
2.40E-01	I	3.70E-06	I			3.00E-02	I	V		7.77E+04	1.36E+09	1.03E+04	1		Propylene Oxide	75-56-9	2.9E+00		7.8E+00	2.1E+00			3.2E+02	3.2E+02
				1.00E-03	I			V		5.30E+05	1.36E+09	5.54E+04	1		Pyridine	110-86-1					7.8E+01			7.8E+01
				5.00E-04	I						1.36E+09		1	0.1	Quinalphos	13593-03-8					3.9E+01	1.6E+02		3.2E+01
3.00E+00	I										1.36E+09		1	0.1	Quinoline	91-22-5	2.3E-01	8.2E-01		1.8E-01				
				9.00E-03	I						1.36E+09		1	0.1	Quizalofop-ethyl	76578-14-8					7.0E+02	3.0E+03		5.7E+02
						3.00E+04	A						1		Refractory Ceramic Fibers (units in fibers)	E715557								
				3.00E-02	I						1.36E+09		1	0.1	Resmethrin	10453-86-8					2.3E+03	9.9E+03		1.9E+03
				5.00E-02	H			V			1.36E+09	4.65E+05	1		Ronnel	299-84-3					3.9E+03			3.9E+03
				4.00E-03	I						1.36E+09		1	0.1	Rotenone	83-79-4					3.1E+02	1.3E+03		2.5E+02
2.20E-01	C	6.30E-05	C						M		1.36E+09		1	0.1	Safrole	94-59-7	7.0E-01	2.7E+00	2.2E+04	5.5E-01				
				5.00E-03	I						1.36E+09		1		Selenious Acid	7783-00-8					3.9E+02			3.9E+02
				5.00E-03	I	2.00E-02	C				1.36E+09		1		Selenium	7782-49-2					3.9E+02		2.8E+07	3.9E+02
				5.00E-03	C	2.00E-02	C				1.36E+09		1		Selenium Sulfide	7446-34-6					3.9E+02		2.8E+07	3.9E+02
				1.40E-01	O						1.36E+09		1	0.1	Sethoxydim	74051-80-2					1.1E+04	4.6E+04		8.8E+03

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
						3.00E-03	C				1.36E+09		1		Silica (crystalline, respirable)	7631-86-9							4.3E+06	4.3E+06
				5.00E-03	I						1.36E+09		0.04		Silver	7440-22-4					3.9E+02			3.9E+02
1.20E-01	H			5.00E-03	I						1.36E+09		1	0.1	Simazine	122-34-9	5.8E+00	2.1E+01		4.5E+00	3.9E+02	1.6E+03		3.2E+02
				1.30E-02	I						1.36E+09		1	0.1	Sodium Acifluorfen	62476-59-9					1.0E+03	4.3E+03		8.2E+02
				4.00E-03	I						1.36E+09		1		Sodium Azide	26628-22-8					3.1E+02			3.1E+02
2.70E-01	H			3.00E-02	I						1.36E+09		1	0.1	Sodium Diethyldithiocarbamate	148-18-5	2.6E+00	9.2E+00		2.0E+00	2.3E+03	9.9E+03		1.9E+03
				5.00E-02	A	1.40E-02	C				1.36E+09		1		Sodium Fluoride	7681-49-4					3.9E+03		2.0E+07	3.9E+03
				2.00E-05	I						1.36E+09		1	0.1	Sodium Fluoroacetate	62-74-8					1.6E+00	6.6E+00		1.3E+00
				1.00E-03	H						1.36E+09		1		Sodium Metavanadate	13718-26-8					7.8E+01			7.8E+01
				8.00E-04	P						1.36E+09		1		Sodium Tungstate	13472-45-2					6.3E+01			6.3E+01
				8.00E-04	P						1.36E+09		1		Sodium Tungstate Dihydrate	10213-10-2					6.3E+01			6.3E+01
2.40E-02	H			3.00E-02	I						1.36E+09		1	0.1	Stirofos (Tetrachlorovinphos)	961-11-5	2.9E+01	1.0E+02		2.3E+01	2.3E+03	9.9E+03		1.9E+03
				6.00E-01	I						1.36E+09		1		Strontium, Stable	7440-24-6					4.7E+04			4.7E+04
				3.00E-04	I						1.36E+09		1	0.1	Strychnine	57-24-9					2.3E+01	9.9E+01		1.9E+01
				2.00E-01	I	1.00E+00	I	V		8.67E+02	1.36E+09	9.35E+03	1		Styrene	100-42-5					1.6E+04		9.7E+03	6.0E+03
				3.00E-03	P						1.36E+09		1	0.1	Styrene-Acrylonitrile (SAN) Trimer (THNA isomer)	57964-39-3					2.3E+02	9.9E+02		1.9E+02
				3.00E-03	P						1.36E+09		1	0.1	Styrene-Acrylonitrile (SAN) Trimer (THNP isomer)	57964-40-6					2.3E+02	9.9E+02		1.9E+02
				1.00E-03	P	2.00E-03	X				1.36E+09		1	0.1	Sulfolane	126-33-0					7.8E+01	3.3E+02	2.8E+06	6.3E+01
				8.00E-04	P						1.36E+09		1	0.1	Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9					6.3E+01	2.6E+02		5.1E+01
						1.00E-03	C	V			1.36E+09		1		Sulfur Trioxide	7446-11-9							1.4E+06	1.4E+06
						1.00E-03	C				1.36E+09		1		Sulfuric Acid	7664-93-9							1.4E+06	1.4E+06
2.50E-02	I	7.10E-06	I	5.00E-02	H						1.36E+09		1	0.1	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	2.8E+01	9.9E+01	5.4E+05	2.2E+01	3.9E+03	1.6E+04		3.2E+03
				7.00E-02	I						1.36E+09		1	0.1	Tebuthiuron	34014-18-1					5.5E+03	2.3E+04		4.4E+03
				2.00E-02	H						1.36E+09		1	0.1	Temephos	3383-96-8					1.6E+03	6.6E+03		1.3E+03
				1.30E-02	I						1.36E+09		1	0.1	Terbacil	5902-51-2					1.0E+03	4.3E+03		8.2E+02
				2.50E-05	H			V		3.09E+01	1.36E+09	2.64E+05	1		Terbufos	13071-79-9					2.0E+00			2.0E+00
				1.00E-03	I						1.36E+09		1	0.1	Terbutryn	886-50-0					7.8E+01	3.3E+02		6.3E+01
5.00E-03	C	1.30E-06	C					V			1.36E+09	3.99E+03	1		Tert-Butyl Acetate	540-88-5	1.4E+02		8.6E+00	8.1E+00				
				1.00E-04	I						1.36E+09		1	0.1	Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1					7.8E+00	3.3E+01		6.3E+00
				3.00E-05	P			V			1.36E+09	5.07E+04	1		Tetrachlorobenzene, 1,2,4,5-	95-94-3					2.3E+00			2.3E+00
2.60E-02	I	7.40E-06	I	3.00E-02	I			V		6.80E+02	1.36E+09	5.68E+03	1		Tetrachloroethane, 1,1,1,2-	630-20-6	2.7E+01		2.2E+00	2.0E+00	2.3E+03			2.3E+03
2.00E-01	I	5.80E-05	C	2.00E-02	I			V		1.90E+03	1.36E+09	1.51E+04	1		Tetrachloroethane, 1,1,2,2-	79-34-5	3.5E+00		7.3E-01	6.0E-01	1.6E+03			1.6E+03
2.10E-03	I	2.60E-07	I	6.00E-03	I	4.00E-02	I	V		1.66E+02	1.36E+09	2.35E+03	1		Tetrachloroethylene	127-18-4	3.3E+02		2.5E+01	2.4E+01	4.7E+02		9.8E+01	8.1E+01
				3.00E-02	I						1.36E+09		1	0.1	Tetrachlorophenol, 2,3,4,6-	58-90-2					2.3E+03	9.9E+03		1.9E+03
1.60E+01	X			6.00E-05	X			V			1.36E+09	1.05E+05	1		Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	4.3E-02			4.3E-02	4.7E+00			4.7E+00
				5.00E-04	I						1.36E+09		1	0.1	Tetraethyl Dithiopyrophosphate	3689-24-5					3.9E+01	1.6E+02		3.2E+01
						8.00E+01	I	V		2.05E+03	1.36E+09	1.22E+03	1		Tetrafluoroethane, 1,1,1,2-	811-97-2							1.0E+05	1.0E+05
				1.00E-04	X						1.36E+09		1	0.1	Tetramethylphosphoramide, -N,N,N',N" (TMPA)	16853-36-4					7.8E+00	3.3E+01		6.3E+00
				2.00E-03	P						1.36E+09		1	0.00065	Tetryl (Trinitrophenylmethylnitramine)	479-45-8					1.6E+02	1.0E+05		1.6E+02
				2.00E-05	G						1.36E+09		1		Thallic Oxide	1314-32-5					1.6E+00			1.6E+00
				1.00E-05	X						1.36E+09		1		Thallium (I) Nitrate	10102-45-1					7.8E-01			7.8E-01
				1.00E-05	X						1.36E+09		1		Thallium (Soluble Salts)	7440-28-0					7.8E-01			7.8E-01
				1.00E-05	X			V			1.36E+09	1.40E+05	1		Thallium Acetate	563-68-8					7.8E-01			7.8E-01
				2.00E-05	X						1.36E+09		1	0.1	Thallium Carbonate	6533-73-9					1.6E+00	6.6E+00		1.3E+00
				1.00E-05	X						1.36E+09		1		Thallium Chloride	7791-12-0					7.8E-01			7.8E-01
				1.00E-05	G						1.36E+09		1		Thallium Selenite	12039-52-0					7.8E-01			7.8E-01
				2.00E-05	X						1.36E+09		1		Thallium Sulfate	7446-18-6					1.6E+00			1.6E+00
				4.30E-02	O						1.36E+09		1	0.1	Thifensulfuron-methyl	79277-27-3					3.4E+03	1.4E+04		2.7E+03
				1.00E-02	I						1.36E+09		1	0.1	Thiobencarb	28249-77-6					7.8E+02	3.3E+03		6.3E+02
				2.00E-04	P						1.36E+09		1		Thiocyanates	E1790665					1.6E+01			1.6E+01
				2.00E-04	X			V			1.36E+09		1		Thiocyanic Acid	463-56-9					1.6E+01			1.6E+01
				3.00E-02	H						1.36E+09		1	0.1	Thiocyanic acid, (2-benzothiazolylthio)methyl ester (TCMTB)	21564-17-0					2.3E+03	9.9E+03		1.9E+03
				7.00E-02	X						1.36E+09		1	0.0075	Thiodiglycol	111-48-8					5.5E+03	3.1E+05		5.4E+03
				3.00E-04	H						1.36E+09		1	0.1	Thiofanox	39196-18-4					2.3E+01	9.9E+01		1.9E+01
1.16E-02	O			1.60E-01	O						1.36E+09		1	0.1	Thiophanate, Methyl	23564-05-8	6.0E+01	2.1E+02		4.7E+01	1.3E+04	5.3E+04		1.0E+04
				1.50E-02	O						1.36E+09		1	0.1	Thiram	137-26-8					1.2E+03	4.9E+03		9.5E+02
				6.00E-01	H						1.36E+09		1		Tin	7440-31-5					4.7E+04			4.7E+04
						1.00E-04	A	V			1.36E+09		1		Titanium Tetrachloride	7550-45-0							1.4E+05	1.4E+05
				8.00E-02	I	5.00E+00	I	V		8.18E+02	1.36E+09	4.29E+03	1		Toluene	108-88-3					6.3E+03		2.2E+04	4.9E+03
3.90E-02	C	1.10E-05	C			8.00E-06	C	V			1.36E+09	7.62E+05	1		Toluene-2,4-diisocyanate	584-84-9	1.8E+01		1.9E+02	1.6E+01			6.4E+00	6.4E+00
3.90E-02	C	1.10E-05	C			8.00E-06	C	V		1.71E+03	1.36E+09	6.32E+05	1		Toluene-2,6-diisocyanate	91-08-7	1.8E+01		1.6E+02	1.6E+01			5.3E+00	5.3E+00
				1.00E-04	X						1.36E+09		1	0.1	Toluenediamine, 2,3-	2687-25-4					7.8E+00	3.3E+01		6.3E+00
1.80E-01	X			2.00E-04	X						1.36E+09		1	0.1	Toluenediamine, 2,5-	95-70-5	3.9E+00	1.4E+01		3.0E+00	1.6E+01	6.6E+01		1.3E+01
				1.00E-04	X						1.36E+09		1	0.1	Toluenediamine, 3,4-	496-72-0					7.8E+00	3.3E+01		6.3E+00
				5.00E-03	P						1.36E+09		1	0.1	Toluic Acid, p-	99-94-5					3.9E+02	1.6E+03		3.2E+02
1.60E-02	P	5.10E-05	C								1.36E+09		1	0.1	Toluidine, o- (Methylaniline, 2-)	95-53-4	4.3E+01	1.5E+02	7.5E+04	3.4E+01				
3.00E-02	P			4.00E-03	X						1.36E+09		1	0.1	Toluidine, p-	106-49-0	2.3E+01	8.2E+01		1.8E+01	3.1E+02	1.3E+03		2.5E+02
				3.00E+00	P			V		3.42E-01	1.36E+09	1.38E+03	1		Total Petroleum Hydrocarbons (Aliphatic High)	E1790670					2.3E+05			2.3E+05
				5.00E-03	P	4.00E-01	P	V		1.12E+02	1.36E+09	1.65E+03	1		Total Petroleum Hydrocarbons (Aliphatic Low)	E1790666					3.9E+02		6.9E+02	2.5E+02
				1.00E-02	X	1.00E-01	P	V		6.86E+00	1.36E+09	1.04E+03	1		Total Petroleum Hydrocarbons (Aliphatic Medium)	E1790668					7.8E+02		1.1E+02	9.6E+01
				3.00E-04	P	2.00E-06	P		M		1.36E+09		1	0.13	Total Petroleum Hydrocarbons (Aromatic High)	E1790676					2.3E+01	7.6E+01	2.8E+03	1.8E+01
				1.00E-02	P	6.00E-02	P	V		2.31E+02	1.36E+09	7.75E+03	1		Total Petroleum Hydrocarbons (Aromatic Medium)	E1790674					7.8E+02		4.8E+02	3.0E+02
1.10E+00	I	3.20E-04	I	9.00E-05	P						1.36E+09		1	0.1	Toxaphene	8001-35-2	6.3E-01	2.2E+00	1.2E+04	4.9E-01	7.0E+00	3.0E+01		5.7E+00
				3.00E-05	X						1.36E+09		1	0.1	Toxaphene, Weathered	E1841606					2.3E+00	9.9E+00		1.9E+00
				7.50E-03	I						1.36E+09		1	0.1	Tralomethrin	66841-25-6					5.9E+02	2.5E+03		4.7E+02
				3.00E-04	A			V			1.36E+09	3.36E+03	1		Tri-n-butyltin	688-73-3					2.3E+01			2.3E+01
				8.00E+01	X						1.36E+09		1	0.1	Triacetin	102-76-1					6.3E+06	2.6E+07		5.1E+06
				3.40E-02	O						1.36E+09		1	0.1	Triadimefon	43121-43-3					2.7E+03	1.1E+04		2.1E+03
7.17E-02	O			2.50E-02	O			V			1.36E+09	3.62E+05	1		Triallate	2303-17-5	9.7E+00			9.7E+00	2.0E+03			2.0E+03
				1.00E-02	I						1.36E+09		1	0.1	Triasulfuron	82097-50-5					7.8E+02	3.3E+03		6.3E+02
				8.00E-03	I						1.36E+09		1	0.1	Tribenuron-methyl	101200-48-0					6.3E+02	2.6E+03		5.1E+02
				5.00E-03	I			V			1.36E+09	4.83E+04	1		Tribromobenzene, 1,2,4-	615-54-3					3.9E+02			3.9E+02
				9.00E-03	X						1.36E+09		1	0.1	Tribromophenol, 2,4,6-	118-79-6					7.0E+02	3.0E+03		5.7E+02

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; T = ATSDR DRAFT; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; R = ORD; N = WI; W = TEF applied; E = RPF applied; G = see user's guide; c = cancer; n = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; m = ceiling limit exceeded; s = Csat exceeded; V = volatile; M = mutagen.

Toxicity and Chemical-specific Information																Contaminant		Carcinogenic Target Risk (TR) = 1E-06				Noncancer Child Hazard Index (HI) = 1			
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	mutagen	C_{sat} (mg/kg)	PEF (m^3/kg)	VF (m^3/kg)	GIABS	ABS_d	Analyte	CAS No.	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
				2.00E-04	O						1.36E+09		1	0.1	Tribufos	78-48-8					1.6E+01	6.6E+01		1.3E+01
9.00E-03	P			1.00E-02	P						1.36E+09		1	0.1	Tributyl Phosphate	126-73-8	7.7E+01	2.7E+02		6.0E+01	7.8E+02	3.3E+03		6.3E+02
				3.00E-04	P						1.36E+09		1	0.1	Tributyltin Compounds	E1790679					2.3E+01	9.9E+01		1.9E+01
				3.00E-04	I						1.36E+09		1	0.1	Tributyltin Oxide	56-35-9					2.3E+01	9.9E+01		1.9E+01
											1.36E+09		1	0.1	Trichloramine	10025-85-1								
				3.00E+01	I	5.00E+00	P	V		9.10E+02	1.36E+09	1.29E+03	1		Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1					2.3E+06		6.7E+03	6.7E+03
7.00E-02	I			2.00E-02	I						1.36E+09		1	0.1	Trichloroacetic Acid	76-03-9	9.9E+00	3.5E+01		7.8E+00	1.6E+03	6.6E+03		1.3E+03
2.90E-02	H										1.36E+09		1	0.1	Trichloroaniline HCl, 2,4,6-	33663-50-2	2.4E+01	8.5E+01		1.9E+01				
7.00E-03	X			3.00E-05	X						1.36E+09		1	0.1	Trichloroaniline, 2,4,6-	634-93-5	9.9E+01	3.5E+02		7.8E+01	2.3E+00	9.9E+00		1.9E+00
				8.00E-04	X			V			1.36E+09	3.22E+04	1		Trichlorobenzene, 1,2,3-	87-61-6					6.3E+01			6.3E+01
2.90E-02	P			1.00E-02	I	2.00E-03	P	V		4.04E+02	1.36E+09	2.99E+04	1		Trichlorobenzene, 1,2,4-	120-82-1	2.4E+01			2.4E+01	7.8E+02		6.2E+01	5.8E+01
				2.00E+00	I	5.00E+00	I	V		6.40E+02	1.36E+09	1.65E+03	1		Trichloroethane, 1,1,1-	71-55-6					1.6E+05		8.6E+03	8.1E+03
5.70E-02	I	1.60E-05	I	4.00E-03	I	2.00E-04	X	V		2.16E+03	1.36E+09	7.22E+03	1		Trichloroethane, 1,1,2-	79-00-5	1.2E+01		1.3E+00	1.1E+00	3.1E+02		1.5E+00	1.5E+00
4.60E-02	I	4.10E-06	I	5.00E-04	I	2.00E-03	I	V	M	6.92E+02	1.36E+09	2.21E+03	1		Trichloroethylene	79-01-6	8.8E+00		1.1E+00	9.4E-01	3.9E+01		4.6E+00	4.1E+00
				3.00E-01	I			V		1.23E+03	1.36E+09	1.04E+03	1		Trichlorofluoromethane	75-69-4					2.3E+04			2.3E+04
				1.00E-01	I						1.36E+09		1	0.1	Trichlorophenol, 2,4,5-	95-95-4					7.8E+03	3.3E+04		6.3E+03
1.10E-02	I	3.10E-06	I	1.00E-03	P						1.36E+09		1	0.1	Trichlorophenol, 2,4,6-	88-06-2	6.3E+01	2.2E+02	1.2E+06	4.9E+01	7.8E+01	3.3E+02		6.3E+01
				1.00E-02	I						1.36E+09		1	0.1	Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5					7.8E+02	3.3E+03		6.3E+02
				8.00E-03	I						1.36E+09		1	0.1	Trichlorophenoxypropionic acid, -2,4,5	93-72-1					6.3E+02	2.6E+03		5.1E+02
				5.00E-03	I			V		1.28E+03	1.36E+09	1.50E+04	1		Trichloropropane, 1,1,2-	598-77-6					3.9E+02			3.9E+02
3.00E+01	I			4.00E-03	I	3.00E-04	I	V	M	1.40E+03	1.36E+09	1.57E+04	1		Trichloropropane, 1,2,3-	96-18-4	5.1E-03			5.1E-03	3.1E+02		4.9E+00	4.8E+00
				3.00E-03	X	3.00E-04	P	V		3.11E+02	1.36E+09	2.34E+03	1		Trichloropropene, 1,2,3-	96-19-5					2.3E+02		7.3E-01	7.3E-01
				2.00E-02	A						1.36E+09		1	0.1	Tricresyl Phosphate (TCP)	1330-78-5					1.6E+03	6.6E+03		1.3E+03
				3.00E-03	I						1.36E+09		1	0.1	Tridiphane	58138-08-2					2.3E+02	9.9E+02		1.9E+02
						7.00E-03	I	V		2.79E+04	1.36E+09	1.58E+04	1		Triethylamine	121-44-8							1.2E+02	1.2E+02
				2.00E+00	P						1.36E+09		1	0.1	Triethylene Glycol	112-27-6					1.6E+05	6.6E+05		1.3E+05
						2.00E+01	P	V		4.81E+03	1.36E+09	7.12E+02	1		Trifluoroethane, 1,1,1-	420-46-2							1.5E+04	1.5E+04
7.70E-03	I			7.50E-03	I			V			1.36E+09	5.13E+05	1		Trifluralin	1582-09-8	9.0E+01			9.0E+01	5.9E+02			5.9E+02
2.00E-02	P			1.00E-02	P						1.36E+09		1	0.1	Trimethyl Phosphate	512-56-1	3.5E+01	1.2E+02		2.7E+01	7.8E+02	3.3E+03		6.3E+02
				1.00E-02	I	6.00E-02	I	V		2.93E+02	1.36E+09	9.44E+03	1		Trimethylbenzene, 1,2,3-	526-73-8					7.8E+02		5.9E+02	3.4E+02
				1.00E-02	I	6.00E-02	I	V		2.19E+02	1.36E+09	7.91E+03	1		Trimethylbenzene, 1,2,4-	95-63-6					7.8E+02		5.0E+02	3.0E+02
				1.00E-02	I	6.00E-02	I	V		1.82E+02	1.36E+09	6.61E+03	1		Trimethylbenzene, 1,3,5-	108-67-8					7.8E+02		4.1E+02	2.7E+02
				1.00E-02	X			V		2.96E+01	1.36E+09	1.00E+03	1		Trimethylpentene, 2,4,4-	25167-70-8					7.8E+02			7.8E+02
				3.00E-02	I						1.36E+09		1	0.019	Trinitrobenzene, 1,3,5-	99-35-4					2.3E+03	5.2E+04		2.2E+03
3.00E-02	I			5.00E-04	I						1.36E+09		1	0.032	Trinitrotoluene, 2,4,6-	118-96-7	2.3E+01	2.6E+02		2.1E+01	3.9E+01	5.2E+02		3.6E+01
				2.00E-02	P						1.36E+09		1	0.1	Triphenylphosphine Oxide	791-28-6					1.6E+03	6.6E+03		1.3E+03
				2.00E-02	A						1.36E+09		1	0.1	Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8					1.6E+03	6.6E+03		1.3E+03
				1.00E-02	X						1.36E+09		1	0.1	Tris(1-chloro-2-propyl)phosphate	13674-84-5					7.8E+02	3.3E+03		6.3E+02
2.30E+00	C	6.60E-04	C					V		4.67E+02	1.36E+09	9.03E+05	1		Tris(2,3-dibromopropyl)phosphate	126-72-7	3.0E-01		3.8E+00	2.8E-01				
2.00E-02	P			7.00E-03	P						1.36E+09		1	0.1	Tris(2-chloroethyl)phosphate	115-96-8	3.5E+01	1.2E+02		2.7E+01	5.5E+02	2.3E+03		4.4E+02
3.20E-03	P			1.00E-01	P						1.36E+09		1	0.1	Tris(2-ethylhexyl)phosphate	78-42-2	2.2E+02	7.7E+02		1.7E+02	7.8E+03	3.3E+04		6.3E+03
				8.00E-04	P						1.36E+09		1		Tungsten	7440-33-7					6.3E+01			6.3E+01
				2.00E-04	A	4.00E-05	A				1.36E+09		1		Uranium	7440-61-1					1.6E+01		5.7E+04	1.6E+01
1.00E+00	C	2.90E-04	C						M		1.36E+09		1	0.1	Urethane	51-79-6	1.5E-01	6.0E-01	4.8E+03	1.2E-01				
		8.30E-03	P	9.00E-03	I	7.00E-06	P				1.36E+09		0.026		Vanadium Pentoxide	1314-62-1			4.6E+02	4.6E+02	7.0E+02		9.9E+03	6.6E+02
				5.04E-03	G	1.00E-04	A				1.36E+09		0.026		Vanadium and Compounds	7440-62-2					3.9E+02		1.4E+05	3.9E+02
				1.00E-03	I			V			1.36E+09	1.23E+05	1		Vernolate	1929-77-7					7.8E+01			7.8E+01
				1.20E-03	O						1.36E+09		1	0.1	Vinclozolin	50471-44-8					9.4E+01	4.0E+02		7.6E+01
				1.00E+00	H	2.00E-01	I	V		2.75E+03	1.36E+09	4.40E+03	1		Vinyl Acetate	108-05-4					7.8E+04		9.2E+02	9.1E+02
		1.50E-05	P			3.00E-03	I	V		2.47E+03	1.36E+09	1.37E+03	1		Vinyl Bromide	593-60-2			2.6E-01	2.6E-01			4.3E+00	4.3E+00
7.20E-01	I	4.40E-06	I	3.00E-03	I	5.11E-02	A	V	M	3.92E+03	1.36E+09	9.56E+02	1		Vinyl Chloride	75-01-4	9.4E-02		1.6E-01	5.9E-02	2.3E+02		5.1E+01	4.2E+01
				3.00E-04	I						1.36E+09		1	0.1	Warfarin	81-81-2					2.3E+01	9.9E+01		1.9E+01
				2.00E-01	G	1.00E-01	G	V		3.88E+02	1.36E+09	5.47E+03	1		Xylene, m-	108-38-3					1.6E+04		5.7E+02	5.5E+02
				2.00E-01	G	1.00E-01	G	V		4.34E+02	1.36E+09	6.45E+03	1		Xylene, o-	95-47-6					1.6E+04		6.7E+02	6.4E+02
				2.00E-01	G	1.00E-01	G	V		3.90E+02	1.36E+09	5.58E+03	1		Xylene, p-	106-42-3					1.6E+04		5.8E+02	5.6E+02
				2.00E-01	I	1.00E-01	I	V		2.60E+02	1.36E+09	5.74E+03	1		Xylenes	1330-20-7					1.6E+04		6.0E+02	5.8E+02
				3.00E-04	I						1.36E+09		1		Zinc Phosphide	1314-84-7					2.3E+01			2.3E+01
				3.00E-01	I						1.36E+09		1		Zinc and Compounds	7440-66-6					2.3E+04			2.3E+04
				5.00E-02	I						1.36E+09		1	0.1	Zineb	12122-67-7					3.9E+03	1.6E+04		3.2E+03
				8.00E-05	X						1.36E+09		1		Zirconium	7440-67-7					6.3E+00			6.3E+00

Appendix B CDPHE 6 CCR 1007-2 Solid Waste Regulations Section 5.5

SECTION 5

ASBESTOS WASTE MANAGEMENT

5.1 General Provisions

5.2 Non-Friable Asbestos Waste Disposal Areas

5.3 Friable Asbestos Waste Disposal Areas

5.4 Storage of Asbestos Waste

5.5 Management of Regulated Asbestos-Contaminated Soil (RACS)

- **5.5.1 Scope and Applicability**
- **5.5.2 Exemptions**
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- **5.5.4 Response to Unplanned RACS Discovery**
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  - (A) Project Specific RACS Management Plan (PSRMP)
  - (B) Standard Operating Procedures (SOPs)
  - (C) Standard Requirements of Section 5.5.7
  - (D) Risk Based Approach
- **5.5.6 Remediation of Asbestos in Soil**
- **5.5.7 Standard Requirements for the Disturbance of RACS**
  - (A) Establishment and Control of a Regulated Work Area (RWA)
  - (B) Personal Protective Equipment (PPE) for the Purposes of Preventing Cross-Contamination
  - (C) Wetting
  - (D) Wind Speed Monitoring
  - (E) Air Monitoring
  - (F) Work Practices to be Followed During RACS Disturbance
  - (G) Loading and Placement of RACS
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  - (J) RACS Spill Response
  - (K) Requirements for Exposed RACS Remaining in Place
  - (L) Documentation
- **5.5.8 Packaging and Disposition of Regulated Asbestos-Contaminated Soil (RACS)**
  - (A) Disposal of RACS
  - (B) Onsite Reuse of RACS
  - (C) Demonstration of Non-RACS
- **5.5.9 Fees**

Appendix 5A: Sample Collection Protocols and Analytical Methodologies

SECTION 5

ASBESTOS WASTE MANAGEMENT

5.1 GENERAL PROVISIONS: The provisions of Section 5.1-5.4 shall apply to all asbestos waste disposal areas.

5.1.1 (A) Any person who disposes of asbestos waste and any owner or operator of an asbestos waste disposal area, shall comply with the requirements of Sections 1, 2, 3, and 5 of these regulations.

(B) If a conflict exists between the requirements of this section and Sections 1, 2, or 3, the requirements of Section 5 shall control.

5.1.2 Each asbestos waste disposal area shall comply with the rules and regulations of the Department, the Water Quality Control Commission, the Air Quality Control Commission and each applicable local law and ordinance. Each asbestos waste disposal area shall be located, designed, constructed, operated and maintained so that it will protect public health, worker safety, and the environment.

5.1.3 No asbestos waste management activities shall cause or contribute to the occurrence of any visible emissions.

5.2 NON-FRIABLE ASBESTOS WASTE DISPOSAL AREAS: The provisions of this subsection 5.2 shall apply to each asbestos waste disposal area that receives non-friable asbestos waste.

5.2.1 Within 24 hours following receipt of non-friable asbestos waste and any storage thereof in accordance with Section 5.4 of these regulations, the waste shall be covered with a minimum of nine inches (9") of soil or eighteen inches (18") of non-asbestos cover material**.** The Department and local governing body having jurisdiction may approve on a case-by-case basis alternative materials of an alternative thickness. All other requirements of Sections 1.1 through 1.9 and 2.0 and 3.0 of these regulations regarding placement of "adequate cover" shall also apply to the disposal of non-friable asbestos waste. Operators shall minimize the potential for release from and exposure to asbestos waste after placement in each disposal area and shall not compact the waste prior to application of cover materials. At no time shall compaction equipment come into contact with asbestos waste, containers, or packaging.

5.2.2 Non-friable asbestos waste management shall be accomplished in a manner that minimizes any change in the friability of the waste**.**

5.3 FRIABLE ASBESTOS WASTE DISPOSAL AREAS: The provisions of this subsection 5.3 shall apply to each asbestos waste disposal area that receives friable asbestos waste.

5.3.1 (A) No friable asbestos waste shall be received or disposed of at a solid waste facility unless expressly authorized by an approved design and operations plan. This design and operations plan shall describe the friable asbestos disposal area, areas, or work practices used for onsite disposal of friable asbestos waste and shall contain provisions for a response to a spill or release of friable asbestos waste material.

5.3.2 The Department may approve specific disposal activities for friable asbestos waste on a case-by-case basis in accordance with Section 1.5 of these regulations.

5.3.3 No friable asbestos wastes shall be disposed of within one hundred feet (100') in all directions of the property line of a solid waste disposal site and facility.

5.3.4 Warning signs and fencing, or appropriate controls as approved by the Department, shall be installed and maintained at the perimeter of each asbestos waste disposal area where friable asbestos waste is disposed of, in accordance with the following minimum requirements:

(A) A fence shall be placed around the entire area where there has been or will be disposal of friable asbestos waste to ensure the restriction of activities in that area and to preclude the entry of unauthorized and unprotected personnel.

(B) Warning signs shall be displayed as follows: one at each entrance to each asbestos waste disposal area; and one or more on each side of the fenced area based on the length of the side, at a rate of one for every three hundred linear feet (300') of fence.

(C) Warning signs shall be posted in such a manner and in such locations that the legend can be easily read.

(D) Each warning sign shall be an upright rectangle with minimum measurements of twenty inches by fourteen inches (20"x14").

(E) Each warning sign shall display the legend set out below. The letter sizes used in the legend shall be as specified below or of a visibility at least equal to those specified below.

LEGEND	NOTATION
ASBESTOS WASTE DISPOSAL AREA	1 INCH
DO NOT CREATE DUST	0.75 INCH
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH	14 POINT

(F) Spacing between any two lines in the legend of the warning signs must be at least equal to the height of the upper of the two lines.

(G) Facilities that have existing signs referring to Asbestos Waste Disposal Sites may continue to use these signs until replacement is warranted.

5.3.5 (A) No friable asbestos waste shall be accepted for disposal unless it is tightly sealed in at least two 6 mil, leak-tight plastic bags or in a wrapping or other container deemed equivalent by the Department.

(B) The outermost layer of any containers holding friable asbestos waste shall be labeled with either of the following legends in type at least .5 inches tall:

(1)	CAUTION CONTAINS ASBESTOS AVOID OPENING OR BREAKING CONTAINER BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH
(2)	DANGER CONTAINS ASBESTOS FIBERS AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD

5.3.6 All activities involved in the disposal of friable asbestos waste, including placement in an asbestos waste disposal area, covering the asbestos waste, and compacting the fill shall be conducted in a manner that minimizes the potential for the rupture or opening of any bags, wrappers or other containers holding the friable asbestos waste and that prevents the emission of asbestos to the air.

5.3.7 (A) Within 24 hours following receipt of friable asbestos waste and any storage thereof in accordance with Section 5.4 of these regulations, the waste shall be covered with a minimum of nine inches (9”) of soil or eighteen inches (18”) of non-asbestos cover material**.** The Department and local governing body having jurisdiction may approve on a case-by-case basis alternative materials of an alternative thickness. All other requirements of Sections 1.1 through 1.9 and 2.0 and 3.0 of these regulations regarding placement of "adequate cover" shall also apply to the disposal of friable asbestos waste. Operators shall minimize the potential for release from and exposure to asbestos waste after placement in the disposal area and shall not compact the waste prior to application of cover materials. At no time shall compaction equipment come into contact with asbestos waste, containers or packaging.

5.3.8 Structurally rigid containers that hold friable asbestos waste shall be covered as specified in Section 5.3.7 within seventy-two hours of receipt or termination of storage. Precautions must be taken to avoid damage or rupture of the asbestos containers during handling. Before the owner/operator compacts any friable asbestos waste containers, the containers shall be covered with a minimum of nine inches (9”) of soil or eighteen inches (18”) of non-asbestos cover material.

5.3.9 (A) Any friable asbestos waste received in packaging other than a structurally rigid container shall be received and disposed of only if:

(1) An asbestos waste disposal area necessary for the disposal of such friable asbestos waste is prepared prior to the arrival of such waste at the landfill;

(2) A minimum of nine inches (9”) of soil or eighteen inches (18”) of non-asbestos cover material and the equipment necessary to cover the asbestos waste upon its placement in each asbestos waste disposal area is available to cover the asbestos waste per the requirements of Sections 5.3.7 and 5.3.8;

(3) All unrelated landfill activities within one hundred (100') feet in all directions of each asbestos waste disposal area are stopped during the placement, covering, and compaction of the asbestos waste;

(4) No non-essential persons are allowed within one hundred (100') feet in all directions of each asbestos waste disposal area during the placement, covering, and compaction of the asbestos waste;

(5) Sustained wind speeds at the asbestos waste disposal area do not exceed twenty miles per hour (20 mph) and gusts do not exceed thirty miles per hour (30 mph);

(6) A source of water is provided at the site to facilitate wetting the asbestos wastes if any container is breeched during placement of asbestos waste.

(B) Any friable asbestos waste received in packaging other than structurally rigid containers shall be disposed of by placement in an asbestos waste disposal area that is at least one hundred feet (100') in all directions from any area being used concurrently for the disposal of other waste.

5.3.10 The owner or operator of an asbestos waste disposal area where friable asbestos waste has been disposed of shall:

(A) Maintain operating records required under subsection 2.4 of these regulations, including permanent records of the date and amount of each receipt of asbestos waste, the location of each asbestos waste disposal area within the boundaries of the solid waste disposal facility and the quantity of asbestos waste at each such location. These records shall be of sufficient specificity to identify the location and depth of the asbestos waste.

(B) Ensure that records made to comply with this subsection are readily available at all times and are made available to the local governing body having jurisdiction and the Department upon request.

(C) Such records shall be submitted to the local governing body having jurisdiction within thirty (30) days after the closure of the asbestos waste disposal area has been completed.

5.4 STORAGE OF ASBESTOS WASTE: Storage of asbestos waste at an asbestos waste disposal area, prior to burial, shall be conducted in accordance with the following requirements:

5.4.1 Asbestos waste shall be stored only in rigid containers and in segregated locations used solely for the purpose of such storage where asbestos waste packages can be handled, stored and maintained without being opened or disturbed.

5.4.2 Asbestos waste shall be stored at an asbestos waste disposal area for no more than twenty (20) calendar days prior to burial.

5.4.3 A warning sign shall be posted on each side of an area where asbestos waste is stored prior to burial. Such signs shall conform to subsection 5.3.4(C), (D) and (F). The legend on each such sign shall conform to the requirements of subsection 5.3.4(E) except that the first line shall read "Asbestos Waste Storage".

5.5 MANAGEMENT OF REGULATED ASBESTOS-CONTAMINATED SOIL (RACS):

5.5.1 SCOPE AND APPLICABILITY

The requirements of Section 5.5 apply to the owner or operator of any property with regulated asbestos contaminated soil (RACS) at which soil-disturbing activities are occurring or planned. The owner/operator may choose to follow the procedures set forth in Sections 5.5.1(A) and 5.5.1(B) below when debris is exposed or disturbed to determine if the debris is RACS. The requirements of Sections 5.5.1(C) and 5.5.1(D) apply when RACS is exposed or disturbed.

(A) Any person who disturbs debris or exposes debris during a soil disturbing activity shall characterize debris to determine the applicability of Section 5.5, and have appropriate personnel to characterize debris. Any person who disturbs debris or exposes debris during a soil disturbing activity shall:

(1) Conduct visual inspection of disturbed material;

(2) If debris is exposed during soil disturbing activities, and/or the soil or ash is known to contain asbestos fibers, through documented

evidence, then Section 5.5 is applicable. If there is no visible RACS or documented evidence of RACS at a site, an owner/operator does not have a duty under these regulations to sample or otherwise investigate for RACS prior to commencing soil disturbing activities;

(3) If debris is exposed that only contains green waste, and/or natural stone with no associated material suspected of containing asbestos fibers, then Section 5.5 is not applicable.

(4) In the event of an emergency in which a soil disturbing activity in an area of debris must continue or commence at once, a RACS determination in accordance with Section 5.5.1(B) may be postponed during the initial response to the immediate emergency. However, the RACS determination must be made within 48 hours of the initial emergency response.

(5) Any person who exposes but does not disturb debris during a soil disturbing activity shall have protocols to characterize debris as required by this section 5.5.1(A) and stabilize any debris determined to be RACS as required by Section 5.5.7(K), unless the debris is exempted by subsection 5.5.2(A) through (F).

(B) Any person who disturbs debris during soil disturbing activities, when the subject debris is not excluded within Section 5.5.1(A)(3), must inspect the debris, through continuous visual inspection during soil disturbing activities, to determine if the debris is, or contains, suspect asbestos-containing material (ACM). If debris is exposed that only contains metal, glass, plastic, wood, and/or bare concrete with no associated material suspected of being ACM (such as sealants, adhesives, mastics, coatings, adhered materials, or resins), then Section 5.5 is not applicable. The person(s) conducting the visual inspection must be a Qualified Project Monitor (QPM) or a Certified Asbestos Building Inspector (CABI).

All suspect ACM(s) must be:

(1) Assumed to be ACM; or

(2) Sampled by a CABI. The samples shall be analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP) participating laboratory utilizing Polarized Light Microscopy (PLM) (EPA Method 600/R-93/116 or equivalent) to determine if it is ACM; or

(3) Determined to be ACM, or non-ACM, through the use of documentation specific to the material observed in the field establishing the asbestos content of the material (e.g. laboratory analysis results from previous encounters with the same material).

(4) The ACM determination shall be made within seven (7) calendar days of discovery of the debris.

(a) Within 24 hours of discovery of debris, and until the ACM determination is made, the debris shall be stabilized in accordance with Section 5.5.4(A)(3) of these regulations.
(b) No additional disturbance, other than necessary to perform the required stabilization in Section 5.5.4(A)(3), of the debris shall occur prior to the asbestos determination.

(5) A person who disturbs debris, determined or assumed to be or contain ACM per this 5.5.1(B), shall determine if the ACM is exempted in accordance with Section 5.5.2 of these regulations.

(6) A person who disturbs debris, determined or assumed to be or contain ACM per this 5.5.1(B), shall make a RACS determination by:

(a) Assuming the debris containing ACM is RACS and managing the RACS in accordance with Section 5.5 of these regulations; or
(b) Applying site and material specific knowledge of the presence or absence of RACS based on observation and/or documented evidence about the nature of ACM(s).

(7) The owner/operator shall retain, or make available for inspection, records of all RACS determinations onsite for the duration of the debris disturbance, which shall be retained by the owner/operator for a period of six (6) months after the completion of debris disturbing activities.

(C) Soil or ash known to contain non-visible asbestos, based on documented evidence, is RACS and if exposed or disturbed shall be managed in accordance with these regulations.

(D) If soil, ash, or debris is, or contains, RACS then:

(1) RACS that is exposed or disturbed shall be managed, disposed of, or reused in accordance with these regulations.

(2) Removal of ACM that is on, or comprises, a facility component, that is located on or in soil that will be disturbed, shall be conducted under this Section 5.5, in accordance with work practices in Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), Section III.V, and is not subject to the permit requirements of 5 CCR 1001-10, Part B, if the total quantity of ACM is below the following trigger levels:

(a) 260 linear feet on pipes; or
(b) 160 square feet on other surfaces; or
(c) The volume of a 55-gallon drum.

(3) RACS that is generated and not disposed of or reused in compliance with Section 5.5.8 of these regulations is solid waste and shall be managed in accordance with the landfill requirements of the Colorado Solid Wastes Disposal Sites and Facilities Act (C.R.S. 30-20, Part 1) and Sections 5.1 through 5.4 of these regulations.

(4) Except as provided in Section 5.5.1(D)(5), a person who disturbs or exposes RACS shall make the decision upon the initial discovery of RACS to either manage the RACS in accordance with Section 5.5, or cease soil disturbing activities and permanently stabilize the disturbed or exposed RACS to control the release of asbestos fibers in accordance with one of the following:

(a) Cover RACS with geofabric, or equivalent visible and physical barrier, and restore the site to pre-disturbance conditions using fill suitable for unrestricted use; or
(b) Cover RACS with geofabric, or other visible and physical barrier, followed by eighteen (18) inches of fill suitable for unrestricted use, and vegetation; or
(c) Cover RACS with geofabric, or other visible and physical barrier, followed by six (6) inches of fill suitable for unrestricted use, and concrete or asphalt; or
(d) Cover RACS with geofabric, or other visible and physical barrier, followed by fill suitable for unrestricted use to grade for vertical excavation faces or trenches; or
(e) Alternate cover designs as approved by the Department.

(5) RACS that is driven upon is an RWA and shall be kept adequately wet in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds. All equipment surfaces that have come into contact with RACS shall be decontaminated per Section 5.5.7(I) before leaving the RWA.

5.5.2 EXEMPTIONS

(A) Removal of ACM on a facility component with asbestos quantities above the trigger levels, as defined in 5.5.1(D)(2), is subject to the permit and abatement requirements of Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), and is therefore not subject to this Section 5.5., but shall still comply with Sections 5.1 through 5.4 of these regulations.

(B) Spill response activities that are subject to the requirements of Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B) are not subject to the requirements of Section 5.5, but shall still comply with Sections 5.1 through 5.4 of these regulations.

(C) Ambient occurrences of asbestos fibers in soil that are demonstrated to be the result of background conditions and not the result of site specific activities are not subject to the requirements of this Section 5.5. This background demonstration shall be submitted to, and approved by, the Department prior to the exemption being exercised.

(D) During active solid waste disposal operations, asbestos waste disposal areas that have a certificate of designation are not subject to Section 5.5, but shall comply with the facility's Engineering Design and Operations Plan.

(E) De minimis projects involving a total RACS disturbance of less than one (1) cubic yard, utilizing low-emission methods, are exempt from this Section 5.5, except for the decontamination procedures in Section 5.5.7(I) and the disposal requirements in Section 5.5.8.

(F) Projects conducted directly by a homeowner on their residence not used for the purpose of generating of income, including residential landscaping projects and other private residential soil-disturbing projects conducted after the primary dwelling is built, such as planting trees, digging holes for fence posts, installing sign posts, gardening,

other such projects conducted by homeowners on their residence, as described above, are not subject to this Section 5.5, but shall still comply with Sections 5.1 through 5.4 of these regulations.

(G) Soil disturbing activities involving Non-RACS, where no RACS is present or generated, are not subject to the requirements of Section 5.5, but Non-RACS must be disposed as non-friable asbestos waste in accordance with the disposal requirements set forth in Section 5.2 of these regulations.

(H) Soil disturbing activities involving debris that only contains metal, glass, plastic, wood, and/or bare concrete with no associated material suspected of being ACM (such as sealants, adhesives, mastics, coatings, adhered materials, or resins), as determined by a CABI, QMP, or generator knowledge, are not subject to the requirements of Section 5.5.

(I) Soil disturbing activities involving debris that only contains green waste or natural stone are not subject to the requirements of Section 5.5.

5.5.3 TRAINING

(A) All personnel inside the regulated work area (RWA) during the disturbance of RACS shall have annual awareness training. Except as provided in Section 5.5.3(F), this training requirement also applies to equipment operators and drivers of trucks carrying contaminated material for offsite disposal or reuse. This training shall cover information necessary to comply with Section 5.5 requirements and the approved project specific RACS management plan (PSMRP) or standard operating procedure (SOP) (if any) including:

1) General asbestos awareness; including health effects; and

2) Overview of the requirements of Section 5.5 and its implementation; and

3) Overview of suspect ACM that requires further evaluation by a CABI; and

4) Overview of RACS and Non-RACS; and

5) Worker protection, including respiratory protection. An overview of the levels of personal protective equipment (PPE) required for various activities and conditions; and

6) Decontamination requirements for equipment and personnel including the establishment of decontamination station(s); and

7) Engineering controls in order to prevent visible emissions from leaving the RWA or demonstrate that asbestos is not leaving the RWA above risk-based air thresholds; and

8) Overview of RACS handling procedures.

This training shall be conducted by a CABI who is familiar with the site specific plan and/or the Standard Requirements in Section 5.5.7. Records of this training shall be retained, by the owner/operator, and be available for inspection, for a minimum of one year from the date of the training.

(B) In addition to the annual asbestos awareness training required in 5.5.3(A), all personnel inside the RWA during the disturbance of RACS shall have per-project site-specific awareness training. Except as provided in Section 5.5.3(F), this training requirement also applies to equipment operators and drivers of trucks carrying contaminated material for offsite disposal or reuse. This training shall cover site-specific information necessary to comply with Section 5.5 and the selected management approach for the project (PSRMP, SOPs, or the standard requirements of Section 5.5.7), including:

1) An overview of the items from 5.5.3(A) as they pertain to site specific provisions and/or conditions that will affect work practices; and

2) Project chain-of-command and identification of authorized personnel with stop work authority, and identification of QPM(s); and

3) Hands on training specific to the soil disturbing activities the individual will be performing subject to this Regulation.

This training shall be provided by a CABI who meets the training requirements of 5.5.3(D). Records of this training shall be retained by

the owner/operator, and be available for inspection, for the duration of the project for which the training was conducted.

(C) Qualified Project Monitors shall have, at a minimum:

1) Annual asbestos awareness training and site specific awareness training under Section 5.5.3(A) and (B); and

2) Training from a CABI on identifying debris, exempted materials under Section 5.5.1(A)(3), and the assumption of debris to be RACS as outlined in Section 5.5.1; and

3) Training from a CABI on how to implement the standard requirements under Section 5.5.7 and how to perform the duties that a QPM may perform in lieu of a CABI; and

4) Training from a CABI on how to implement the provisions of the chosen RACS management approach (PSRMP, SOPs, or standard requirements of Section 5.5.7) and how to perform the duties that a QPM may perform in lieu of a CABI; and

5) Forty (40) verifiable hours of direct experience implementing Section 5.5.

Records of this training shall be retained by the owner/operator, and be available for inspection for the duration of the project for which the training was conducted.

(D) Visual Inspection and identification of RACS shall be conducted by a CABI, with forty (40) verifiable hours of on the job asbestos in soils experience on a minimum of three (3) different asbestos in soils projects, conducted under either AQCC Regulation No. 8 or Section 5.5. The CABI shall be independent of the general contractor (GC) and/or abatement contractor unless the CABI and the GC or abatement contractor are both direct employees of the property owner. However, the GC or abatement contractor may hire a subcontractor CABI, but the CABI shall not be a direct employee of the GC or abatement contractor.

(E) Air monitoring conducted in accordance with this Section 5.5 shall be performed by an Air Monitoring Specialist (AMS).

(F) Truck drivers who do not complete the training in 5.5.3(A) and (B) are ancillary workers. Soil disturbing activities must cease if the truck driver is present within the RWA unless the driver remains in the cab of the truck, the truck's windows and doors remain closed, and the air handling system remains off while the truck is inside the RWA.

5.5.4 RESPONSE TO UNPLANNED RACS DISCOVERY

Soil disturbing activities that expose RACS without previously approved plans are subject to the following requirements:

(A) IMMEDIATE ACTIONS: Immediate actions shall be taken by the person conducting the soil disturbing activity, or representative of the owner or operator, to manage RACS in accordance with Section 5.5 and Section 1.2 definitions of these Regulations. These actions shall include, at a minimum, the following:

(1) Stopping all soil disturbing activities related to RACS, until the 24-hour notification requirements in Section 5.5.4(B), and the interim action requirements in Section 5.5.4(C), are met. In the event of an emergency in which a soil disturbing activity must continue or commence at once, notification shall be made as soon as possible, but within 24 hours of identifying or assuming the presence of RACS within the soil disturbing area. During the initial response to the immediate emergency, the standard requirements of Section 5.5.7 shall be implemented to the extent possible. Within 48 hours, any disturbed and/or exposed RACS shall be managed in accordance with the standard requirements of Section 5.5.7, an approved PSRMP, or an approved SOP.

(2) Establishing and taking measures in order to prevent access to the RWA by unauthorized persons. Instances of unauthorized access not under the control of the owner/operator shall be evaluated to determine if additional access controls are warranted. The unauthorized access, and the response actions taken, shall be documented and provided to the Department within 48 hours of the incident.

(3) Conducting interim surface soil stabilization to reduce emissions including:

a. Polyethylene sheeting or geofabric with daily inspection, and inspection after storm events, and repair/replacement of sheeting as necessary to maintain stabilization; or
b. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) with weekly inspection, and inspection after storm events, and re-application of chemical stabilizer as necessary to maintain stabilization; or
c. Minimum of three (3) inches of soil appropriate for unrestricted use; or
d. Other means of stabilization as approved by the Department.
e. Stabilization is not required if RACS is kept adequately wet. Verification of adequately wet conditions shall be conducted at least every two (2) hours, or RACS shall be stabilized by one of the methods described in (3)(a-d) above.

(B) 24-HOUR NOTIFICATION REQUIREMENTS: The owner/operator, or owner/operator representative shall submit a completed Notification of RACS Disturbance form to the Department's Hazardous Materials and Waste Management Division within 24 hours of identifying RACS during a soil disturbing activity.

(C) INTERIM ACTIONS: In accordance with Section 5.5.5, the owner/operator, or owner/operator representative, shall submit to the Department's Hazardous Materials and Waste Management Division, for review and approval, within five (5) workings days of the discovery, a PSRMP, SOPs, or indicate the standard requirements of Section 5.5.7 will be followed on the Notification of RACS Disturbance form submitted to the Department.

(D) Once the requirements of Sections 5.5.4(A), (B), and (C) are completed, any soil disturbing activities shall proceed in accordance with applicable requirements.

5.5.5 RESPONSE TO PLANNED RACS MANAGEMENT

Planned soil disturbing activities involving RACS shall be conducted in accordance with the standard requirements identified in Section 5.5.7, and with one of the following management strategies and the associated notification requirement:

(A) PROJECT SPECIFIC RACS MANAGEMENT PLAN (PSRMP);

(1) The owner/operator, or owner/operator representative, shall submit a completed Notification of RACS Disturbance form to the Department's Hazardous Materials and Waste Management Division at least ten (10) working days prior to any planned soil disturbing activity. This notification shall include submittal of a PSRMP conforming to the requirements of Section 5.5.5(A)(2). The Department will acknowledge receipt of a notification of the intent to utilize a PSRMP by mail or electronic correspondence. The PSRMP shall be approved by the Department prior to implementation.

(2) If the owner/operator choose(s) management in accordance with this Section 5.5.5(A), a PSRMP shall be developed and submitted to the Department's Hazardous Materials and Waste Management Division for review and approval prior to implementation. The Department will use its best efforts to review and respond to the plan within ten (10) working days of receipt. The PSRMP shall include the following:

(a) Property representative's name and phone number; and
(b) Property location; and
(c) General site description, including a description of RACS and the types of known or assumed ACM(s), and the location(s) of these material on the site; and
(d) Description of planned soil disturbing activities; and
(e) Description of site management, emission control activities, and work practices to control the release of, and/or exposure to, asbestos outside of the RWA including:

(i) Measures to assure that the soil is adequately wet (as that term is defined in Section 1.2 of these regulations), stabilized, or covered during soil disturbing activities; and
(ii) Wind speed monitoring during RACS disturbance, including frequency of monitoring, and shutdown and start up criteria; and
(iii) An air monitoring plan designed to detect asbestos at the perimeter of the RWA as an indication that the measures to control the release of asbestos outside of the RWA are effective. The plan may include a tiered air monitoring approach providing less frequent air monitoring given demonstrated effectiveness of work practices; and

(iv) Work practices specific to mechanical and/or hand disturbance of RACS including measures in order to prevent the release of visible emissions outside of the RWA, or demonstrate that asbestos is not leaving the RWA above risk-based air thresholds; and

(v) Work practices for the loading and placement of RACS including spill prevention procedures.

(vi) The owner /operator has the option to erect a structure maintained at a negative pressure differential sufficient to contain all dust, with off-gas from the evacuation system treated with HEPA filtration. If this option is chosen, the requirement to submit an air monitoring plan, under Section 5.5.5(A)(2)(e)(iii) is not applicable.

and

(f) Description and location of any planned sampling. All sampling shall be performed in accordance with the procedures set forth in Appendix 5A. All investigation derived waste shall be managed in accordance with Section 5.5.8.

(3) A copy of the PSRMP shall be maintained on the site during RACS disturbing activities.

(4) At the option of the owner/operator and upon notice to the Department, a Soil Characterization and Management Plan approved prior to the effective date of this amended Section 5.5, and that complies with the substantive requirements of the regulation prior to amendment, shall remain in effect until the completion of the subject project or until it is replaced by a PSRMP.

(B) STANDARD OPERATING PROCEDURES (SOPs)

(1) The owner/operator, or owner/operator representative, shall notify the Department's Hazardous Materials and Waste Management Division, by submitting a completed Notification of RACS Disturbance form, prior to implementation of the previously approved SOPs at a RWA. SOPs that conform to Section 5.5.5(B)(2) shall be approved by the Department prior to implementation. The Department will acknowledge receipt of a notification of the intent to utilize an SOP by mail or electronic correspondence.

(2) If the owner/operator chooses management in accordance with this Section 5.5.5(B), the owner/operator shall develop and submit to the Department's Hazardous Materials and Waste Management Division, for review and approval, thirty (30) calendar days in advance of any RACS disturbing activities, SOPs that conform with Section 5.5.5(A)(2)(a) – (f) that will be implemented, upon notice to the Department per Section 5.5.5(B)(1), at future RWA(s). A copy of the SOPs shall be maintained on site during RACS disturbing activities for the duration of the Project.

(3) At the option of the owner/operator and upon notice to the Department, a SOP approved prior to the effective date of this amended Section 5.5, and that complies with the substantive requirements of the regulation prior to amendment, shall remain in effect and may be used to comply with the amended regulation.

(C) STANDARD REQUIREMENTS OF SECTION 5.5.7

The owner/operator, or owner/operator representative, shall submit to the Department's Hazardous Materials and Waste Management Division a completed Notification of RACS Disturbance form indicating the intent to utilize the standard requirements of Section 5.5.7, as a default RACS management plan, prior to any planned soil disturbing activity. This notification shall include property location, general site description, and contact information for the owner/operator responsible for the RWA activities. The Department will acknowledge receipt of a notification of the intent to utilize the standard requirements of Section 5.5.7 by mail or electronic correspondence.

(D) RISK BASED APPROACH

The owner/operator may choose to submit, for Department review and approval, a site-specific risk assessment work plan to evaluate the risks of the proposed work practices associated with planned disturbance activities in an area or areas of RACS.

5.5.6 REMEDIATION OF ASBESTOS IN SOIL

(A) Remediation is not required of properties at which ACM, RACS, or asbestos waste is located. If the owner of a property chooses to remediate (rather than just manage) all or a portion of the property containing ACM, RACS, or asbestos waste a Remediation Plan shall

be submitted to the Department's Hazardous Materials and Waste Management Division for review and approval prior to commencement of activities associated with the remediation. The Remediation Plan shall comply with this Section 5.5, and include the following:

(1) The standard requirements in accordance with Section 5.5.7, and the plan requirements outlined in Section 5.5.5(A). Alternatively, a risk based approach pursuant to Section 5.5.5(D) may be proposed, for Department review and approval, for disturbance of RACS; and

(2) A detailed description of planned remediation activities, including proposed depth and areal extent of remediation, and work practices to be implemented; and

(3) The proposed use of the property and area of remediation; and

(4) Any planned engineering or institutional controls in order to prevent exposure to any asbestos left in place, or minimize exposure below a risk-based concentration approved by the Department, within the area covered by the Remediation Plan, and

(5) A schedule for submittal of a Remediation Completion Report that incorporates the information from Section 5.5.7(L) and any additional information necessary to demonstrate that the remediation goals have been achieved.

(B) The Department shall use its best efforts to provide written notification that a Remediation Plan has been approved or disapproved within no more than forty-five (45) calendar days after a request by a property owner, unless the property owner and the Department agree to an extension of the review to a date certain.

(C) If a remedial decision is made by the Department, the area subject to the remedial decision may be subject to C.R.S. Section 25-15-320(2), and an environmental covenant may be required for waste left in place.

5.5.7 STANDARD REQUIREMENTS FOR THE DISTURBANCE OF RACS

The requirements of this section, if followed in their entirety, constitute a default RACS management plan, eliminating the need to submit a PSRMP or SOP.

(A) ESTABLISHMENT AND CONTROL OF A REGULATED WORK AREA (RWA)

(1) Requirements for establishment and control of a RWA applicable to all projects subject to this Regulation:

(a) Establish a RWA which is identifiable to all persons. Haul roads between RWAs, where RACS is not present, are considered to be outside the RWA(s); however, equipment decontamination [Section 5.5.7(I)] and spill response procedures [Section 5.5.7(J)] shall be followed; and

(b) Stop all soil disturbing activities in the RWA if ancillary workers or members of the public are present within the RWA. Truck drivers who do not complete the training under Sections 5.5.3(A) and (B) are ancillary workers. Soil disturbing activities must cease if the truck driver is present within the RWA unless the driver remains in the cab of the truck, the truck's windows remain closed, and the air handling system remains off while the truck is inside the RWA; and

(c) Post labeling and signage to demarcate RWA(s). The RWA shall be demarcated by visible means that fully defines the extent of the RWA. Labeling and signage shall indicate the presence of asbestos, and that the area is off limits to unauthorized personnel.

(2) **Additional Requirement for Projects Disturbing RACS Containing Friable ACM.** Establish a secured work site (e.g., fencing with locks/zip-ties/chains). Personnel, or staff assigned to this duty, may be used to secure the RWA in lieu of fencing. If the RWA is located within a larger secure facility, fencing of the RWA is not necessary as long as the RWA is secured.

(B) PERSONAL PROTECTIVE EQUIPMENT (PPE) FOR THE PURPOSES OF PREVENTING CROSS-CONTAMINATION

(1) Requirements applicable to all RWAs subject to this Regulation:

(a) Use of disposable booties or impermeable footwear that will be decontaminated per Section 5.5.7(I); and
(b) Use of disposable gloves or impermeable gloves that will be decontaminated per Section 5.5.7(I); and
(c) Replace or decontaminate (per Section 5.5.7(I)) all PPE in all instances where the integrity of the PPE is compromised, and when workers exit the RWA; and
(d) Decontaminate (per Section 5.5.7(I)) or dispose of all used PPE as asbestos contaminated waste.

(2) **Additional Requirement Applicable to Projects at RWAs Containing Friable ACM.** Use of disposable impermeable suits or equivalent coveralls, remove suits or coveralls upon exiting the RWA, and dispose of used suits or coveralls as asbestos contaminated waste.

(C) WETTING

(1) Wetting requirements applicable to all RACS disturbance:

(a) Adequately wet all RACS and soils, or other materials containing RACS, on the surface and in the sub-surface prior to and during RACS disturbance, except as provided in Section 5.5.7(F)(1)(b)(ii). Pre-wetting is not necessary if soils are already adequately wet. Apply water or amended water (as required in Section 5.5.7(C)(2)) at low pressure in order to minimize dust generation and splattering to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk-based thresholds.
(b) Mist RACS and soils, or other materials, containing RACS during placement as needed to maintain the material in an adequately wet condition using equipment mounted spray bars, or additional hose operator(s).
(c) Except as provided in (d) below, incidental occurrences of visible emissions leaving the RWA shall be managed by evaluating site conditions and engineering controls for each occurrence of visible emissions, and immediately implementing

any identified engineering control revisions necessary in order to prevent future occurrences of visible emissions. All instances of visible emissions leaving the RWA shall be documented as required in Section 5.5.7(L) of this regulation.

(d) When utilizing the risk-based air monitoring threshold approach to evaluate the effectiveness of adequately wetting, visible emissions are allowed to leave the RWA as long as the risk-based air threshold is not exceeded.

(2) **Additional requirement for RACS that contains friable ACM.** Use amended water containing a wetting agent, such as a 50:50 mixture of polyoxyethylene ester and polyoxyethylene ether, or the equivalent, in a 0.16 percent solution (1 ounce to 5 gallons) of water, or as per manufacturer recommendations for the wetting of asbestos. This requirement may be waived by the Department for emergency situations where the work must occur immediately and wetting agents are not available.

(D) WIND SPEED MONITORING

(1) Requirements applicable to all projects involving mechanical disturbance of RACS, and hand disturbance of RACS containing friable ACM:

(a) Take wind measurements from within the RWA using a hand held anemometer. Alternatively, or in conjunction with hand held measurements, an onsite weather station may be used within a quarter mile of the RWA as long as the conditions measured by the weather station are representative of conditions in the RWA.

i. Collect wind speed measurements at a minimum of thirty (30) minute intervals and during wind gust(s). Average wind speed measurements shall be obtained manually by taking ten readings at one minute intervals and averaging the ten readings, or through the use of instrumentation that provides a ten minute average wind speed reading.
ii. If wind break barriers are used, wind speed measurements may be taken from within barriers; however, wind speed measurements shall also be taken outside the wind break barriers if any RACS disturbing activities, such as loading, are taking place outside or above the barriers. Wind speed

shut-down criteria shall be based on measurements taken that are representative of the area of active RACS disturbance.

(b) Immediate stoppage of all RACS disturbance shall occur based on results of wind speed monitoring conducted in accordance with subsection (a) and exceedance of the following criteria:

i. Wind gust(s) in excess of 20 mph, or
ii. Sustained winds in excess of 12 mph, averaged over ten (10) minutes, or
iii. Winds are interfering with the ability of engineering controls to work as intended, or
iv. Winds are creating visible emissions that leave the RWA.

(c) RACS disturbance may resume when all of the following criteria are met:

i. No gust(s) in excess of 20 mph occur for twenty (20) minutes, and
ii. No sustained winds in excess of 12 mph occur for twenty (20) minutes, based on a ten (10) minute average wind speed measurement, and
iii. Winds are not interfering with the ability of engineering controls to function as intended, and
iv. Winds are not creating visible emissions that leave the RWA.

(E) AIR MONITORING

(1) If using the risk-based air threshold approach to monitor the effectiveness of adequately wetting:

(a) Air monitoring to determine asbestos content of visible emissions allowed to leave the RWA, for comparison to the risk-based air thresholds shall not be utilized for projects that are less than ten (10) days in duration.
(b) Air monitoring to determine asbestos content of visible emissions allowed to leave the RWA, for comparison to the risk-based air thresholds, shall begin on the first day of the project.
(c) A minimum of four (4) air samples per day shall be collected for TEM analysis.
(d) Sample collection, analysis, and data evaluation shall be conducted in accordance with Appendix 5A.

(2) If preventing visible emissions leaving the RWA as an indication of the effectiveness of work practices, not for risk evaluation, air monitoring is required during mechanical disturbance of RACS in RWAs with an adjacent receptor zone:

(a) No air monitoring is required for RACS disturbance that will not exceed a duration of two (2) days. However, the requirements for adequate wetting (Section 5.5.7(C)) and no visible emissions leaving the RWA (Section 5.5.7(F)) shall be adhered to on all RACS disturbance projects. Dividing projects into multiple two (2) day or shorter components shall not be used as a mechanism to avoid air monitoring requirements.

(b) Area monitoring shall consist of a minimum of four (4) samples collected on the perimeter of the RWA at appropriate intervals to provide representative information regarding potential releases of asbestos fibers to the adjacent receptor zone(s). Additional samples shall be collected for large perimeter RWAs (greater than one (1) acre). RWAs greater than one (1) acre shall require additional perimeter monitoring points be added at a rate of one (1) sample for every 200 linear feet (or approximately each additional ¼ acre). If representative information about potential releases to the adjacent receptor zone(s) can be collected using less than the minimum number of samples, the remaining sample locations shall be at the discretion of the AMS.

(c) Phase Contrast Microscopy (PCM) analysis is required on all samples collected (unless all samples will be analyzed by Transmission Electron Microscope (TEM) by default). The laboratory shall be requested to provide verbal results to the AMS or the QPM by the start of the next working day, or as soon as possible after the start of the next working day, with written results within 24 hours of the receipt of verbal results. A consultation with the Department is required If this timeframe cannot be met by the laboratory.

(d) Upon receipt of a laboratory report indicating a “cannot be read (CBR)”, or a “not analyzed (NA) or rejected” due to loose debris or uneven loading, analysis result:

i. The AMS shall evaluate the lab report and any field documentation to determine a possible cause for the CBR or "not analyzed (NA) or rejected" result; and
ii. If the CBR or "not analyzed (NA) or rejected" cannot be correlated to a specific field event that compromised the sample (e.g. the sample was blown over, the filter of the sample was sprayed with water) then the sample shall be prepared for indirect TEM presence/absence analysis to determine potential asbestos content in accordance with Appendix 5A; and
iii. If the CBR or "not analyzed (NA) or rejected", analysis result can be correlated to a compromised sample, then preparation for indirect TEM presence/absence analysis is not required as long as adequate air monitoring data is available to evaluate the effectiveness of engineering controls. However, overloading of a sample with particulate matter does not constitute a compromised sample, and will require indirect preparation for TEM presence/absence analysis; and
iv. Field personnel shall evaluate why the sample was compromised and modify field procedures as necessary to avoid future samples from being compromised; and
v. The Department project manager shall be notified by phone or email of instances of CBR or "not analyzed (NA) or rejected" analysis results within 24 hours of receipt of verbal results.

(e) TEM presence/absence analysis is required (analysis providing fiber counts/concentrations is always optional) as described in paragraphs (i) through (iv) below. The laboratory shall be requested to provide verbal results by the start of the next working day, or as soon as possible after the start of the next working day, with written results within 24 hours of the receipt of verbal results.

i. All samples, required by this Section 5.5, with PCM results having fiber concentrations greater than 0.01f/cc shall be submitted for TEM analysis.
ii. During the first five (5) days of RACS disturbance – A minimum of 25% of the samples collected from each RWA, inclusive of the downwind floating samples as described in 5.5.7(E)(3), shall be submitted for TEM analysis. The

sample(s) selected for TEM analysis shall have the highest PCM result(s) based on fiber concentration. If all PCM results are Below Detectable Limit (BDL) for fiber concentration, then the sample(s) selected for TEM analysis shall be determined by highest fiber count. If all samples have no fiber counts (i.e. zero (0) fibers counted, not a "below detection limit" fiber concentration) then no TEM analysis is required.
iii. After five (5) days of RACS disturbance with no asbestos detections by TEM analysis, the frequency of analysis by TEM, on the highest 25% of PCM results(s), may be reduced to once every five (5) days of RACS disturbance, or portions thereof, using the same selection criteria as in paragraphs (i) and (ii) above. The samples submitted for TEM analysis during the period of reduced frequency TEM analysis shall be either the first occurrence of: 1) high winds exceeding wind shut down criteria, or 2) visible emissions. In the absence of high wind events or visible emissions the selected day for TEM analysis may be random, as determined by the AMS.
iv. If there are any asbestos detections during the random once every five (5) days of RACS disturbance analysis by TEM, then TEM analysis shall be conducted for the next three (3) consecutive days of RACS disturbance, or portions thereof, using the same procedures as in paragraph (i) and (ii) above. If there are no additional asbestos detections during the next three (3) consecutive days of RACS disturbance with samples submitted for TEM analysis, then the frequency of TEM analysis may return to random once every five (5) days of RACS disturbance.
v. If site conditions, friability of the materials being managed, or work practices change, then the initial five (5) days of TEM analysis shall restart using the provisions set forth in this Section 5.5.7(E)(1)(e).

(f) Detection or presence responses - For each detection of asbestos by TEM analysis, the following shall be conducted:

i. Notify the Department project manager by phone or email, on the same calendar day as receipt of verbal or written results (whichever comes first) from the laboratory.
ii. Evaluate site conditions and engineering controls for each detection, and immediately implement any identified

engineering control revisions necessary with the goal of preventing future detections of asbestos fibers.

iii. Submit an Emission Control Plan (ECP) to the Department project manager for each detection (days with multiple detections can be addressed by a single ECP). The ECP shall be submitted within 48 hours from the asbestos detection event and shall contain:

1. The date of the detection.
2. A written description of sample details (sample ID, number of structures detected, type of asbestos detected, PCM analytical result) and any potential cause of the release. Include a description of site activity (engineering controls being employed, equipment being used, size of excavation/soil disturbing activity, types of materials identified, etc.) and CABI observations at the work area before and during the presumed time of release.
3. A diagram or write up of all air sample positions clearly indicating which sample received the TEM detection. Indicate, through illustration or description, prevailing wind direction and average wind speeds for the detection event; include any wind speed shutdowns for the date of detection. If applicable, indicate downwind floater air sample relocation times and new positions through illustration or description.
4. Laboratory reports confirming the type and amount of fibers detected by TEM analysis.
5. Other pertinent information that will additionally describe the release and/or will assist in the prevention of future releases from the RWA.
6. A written description of actions taken and any other proposed actions with the goal of preventing future releases from the RWA.
7. If the owner/operator believes fibers are coming from offsite and are not under the control of the owner/operator, then, in addition to the information provided in the ECP, documentation shall be provided demonstrating additional sources of asbestos fibers.

(g) If there are three (3) TEM detections on consecutive analysis events or ten (10) detections for a single project, consultation with the Department is required to determine if the standard requirements of Section 5.5.7 are being implemented appropriately and whether:

i. Changes in the standard requirements of Section 5.5.7 are likely to prevent future releases; or
ii. Changes in the standard requirements of Section 5.5.7 are not likely to prevent future releases and a PSRMP is necessary per Section 5.5.5(A)(2); or
iii. If the owner/operator believes fibers are coming from offsite and are not under the control of the owner/operator, then, in addition to the information provided in the ECP, documentation shall be provided demonstrating additional sources of asbestos fibers. Air samples shall be collected and analyzed following the analytical procedures of Appendix 5A for the type of project being conducted; and
iv. Additional consultation with the Department is required to determine whether additional engineering controls for structures within the adjacent receptor zone are appropriate.

(3) **Additional requirement for projects disturbing RACS containing friable ACM.** Collect two (2) additional downwind floating samples for mechanical disturbance of RACS containing friable ACM. The samplers shall be moved based on prevailing wind direction and adjacent receptors. For example, if adjacent receptors are present on only one side of the RWA, one sample location should be maintained between the RWA and the adjacent receptor.

(F) WORK PRACTICES TO BE FOLLOWED DURING RACS DISTURBANCE

(1) Work practice requirements applicable to all management of RACS:

(a) Prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds by:

i. Excavating in lifts not to exceed the extent of wetting; or

ii. Conducting continuous wetting while mixing dry materials at the point of RACS disturbance to ensure all materials are adequately wet prior to removal from the excavation.
iii. Instances of visible emissions leaving the RWA shall be documented and addressed by changing or increasing controls (e.g. more effective wetting, reduced speed of excavation).

(b) RACS on exposed excavation faces that will be disturbed and/or managed during the project shall either be kept adequately wet (in accordance with Section 5.5.7(C)), or be stabilized using any of the following in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds:

i. Polyethylene sheeting or geofabric with daily inspection, and inspection no later than twelve (12) hours following a storm event, and repair/replace sheeting as necessary to maintain stabilization; or
ii. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) with weekly inspection, and inspection no later than one (1) calendar day following a storm event, and re-application of chemical stabilizer as necessary to maintain stabilization; or
iii. Minimum of three (3) inches of soil appropriate for unrestricted use.

(c) Stormwater shall be managed in accordance with the Water Quality Control Commission's stormwater regulations (5 CCR 1002-61), which include specific stormwater permitting and management requirements for construction sites. The Water Quality Control Division should be contacted to determine the specific requirements for each project. Stormwater shall be managed in a manner that minimizes run on and runoff from RACS. Stormwater that comes into contact with RACS shall be treated as asbestos contaminated water in accordance with Section 5.5.7(J)(4), and other material(s) impacted by asbestos contaminated stormwater shall be managed as RACS in accordance with Section 5.5.7(J)(3).

(2) Work Practice requirements applicable to the management of RACS using hand methods on surfaces or in the subsurface:

a. Wet and remove the RACS and six (6) inches, in all directions, of surrounding soil or other material from the last occurrence of visible ACM; and

b A CABI shall confirm that the visible extent of ACM and surrounding soil, or other material, has been removed (or extent of excavation has been reached). If RACS remains, it shall be managed for stabilization or future removal. If there is no documented evidence of non-visible RACS at the site, then a visual inspection and clearance shall be sufficient to determine the removal of RACS. If there is documented evidence of non-visible RACS at the site, sampling is required to confirm the removal of RACS. After the removal of the additional six (6) inches, and in the absence of any debris, a QPM may make the determination that RACS has been removed; and

c. If RACS remains in the RWA, it shall be managed for stabilization, per Section 5.5.7(K), or future removal.

d. In lieu of stabilization or full removal, sampling may be performed per Section 2.2 of Appendix 5A to demonstrate that the material is not RACS.

e. Dispose of RACS in accordance with Section 5.5.8.

(3) Work practice requirements applicable to management of RACS using mechanical methods:

a. For surface occurrence of RACS - Wet and remove all RACS and a minimum of six (6) inches of soil, and/or other matrix material, in all directions from the last occurrence of visible ACM, with CABI confirmation that the visible extent of RACS has been removed.

b. For subsurface occurrence of RACS - Wet and remove all RACS and a minimum of three (3) linear feet of soil or other matrix material, in the direction(s) of planned excavation, with CABI confirmation that the visible extent of RACS has been removed. If there is no documented evidence of non-visible

RACS at the site, then a visual inspection and clearance shall be sufficient to determine the removal of RACS. If there is documented evidence of non-visible RACS at the site, sampling is required to confirm the removal of RACS. After the removal of the additional three (3) linear feet, and in the absence of any debris, a QPM may make the determination that RACS has been removed.

c. If RACS remains in the RWA, it shall be managed for stabilization, per 5.5.7(K), or future removal.

d. In lieu of stabilization or full removal, sampling may be performed per Appendix 5A to demonstrate that the material is not RACS.

e. Package and dispose of RACS in accordance with Section 5.5.8.

(4) Soil or other matrix material that remains after removal of RACS in accordance with Section 5.5.7(F), Section 5.5.7(H)(1)(c)(i), or an approved plan, is not considered RACS, is not subject to Section 5.5, and may be appropriate for unrestricted use, onsite or offsite, as long as it does not contain any other regulated material.

(G)LOADING AND PLACEMENT OF RACS

(1) Requirements for the loading of RACS:

(a) Protect clean surfaces (including loading surface and truck or disposal container surfaces that may come in contact with RACS) by covering or decontamination of surfaces prior to transport or removal of the truck or disposal container from the RWA and/or loading zone.

(b) Spill prevention shall consist of:

i. Minimization of spillage by not overfilling the excavator or loader bucket and returning the bucket to a closed position prior to moving from the loading point; and
ii. Replacement of protective coverings when worn or damaged in order to prevent breaches; and
iii. Control of runoff in order to prevent cross contamination from water containing asbestos; and

iv. Mitigation of spills of RACS in accordance with Section 5.5.7(J).

(c) During the process of loading the container, the equipment operator shall lower the bucket as close as possible to the interior of the container before dumping, and dump the load slowly to allow adequate misting and in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds.

(2) Requirements for the transportation of RACS:

(a) Onsite transportation of RACS between the RWA and an onsite area of staging, stockpiling, storage, disposal or reuse shall comply with the following:

i. The packaging requirements for RACS set forth in Section 5.5.8(A) of these regulations are not applicable; however, the decontamination requirements of Section 5.5.7(I) shall be followed at the end of disposal operations, or before disposal equipment is removed from the site; and
ii. Driving speeds shall not exceed 12 miles per hour or RACS shall be covered during transport; and
iii. For transportation between the RWA and a non-contiguous onsite staging, stockpiling, storage, disposal, or reuse area:

1. Transportation equipment tires shall not contact RACS; or
2. RACS that is driven upon is a RWA and shall be kept adequately wet in order to prevent visible emissions from leaving the RWA, or demonstrate that asbestos is not leaving the RWA above risk based thresholds, and all equipment surfaces that have come into contact with RACS shall be decontaminated per Section 5.5.7(I) before leaving the RWA; or
3. The haul road shall be managed as RACS for stabilization, per Section 5.5.7(F)(1), and future removal of a minimum of three (3) inches of soil, or other matrix material. If the road is constructed of a durable surface such as concrete or asphalt, the surface shall be decontaminated in accordance with Section 5.5.7(I)(1)(b) using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the

surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(H) ONSITE STAGING, STOCKPILING, AND STORAGE OF RACS

(1) Staging, as defined in Section 1.2 of these regulations, is the accumulation and temporary storage of RACS in the RWA for 12 hours or less. The following requirements shall apply to the staging of RACS:

(a) Staged RACS shall be kept adequately wet.

(b) Staging of RACS shall be on 6 mil, or greater, polyethylene sheeting or shall include removal, and management as RACS, of a minimum of three (3) inches of material, from below the staging pile/area prior to demobilization; with visual or measured confirmation of removal. If polyethylene sheeting is placed on top of a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(c) Material determined to be clean during generation shall be inspected during placement for staging. Staging of clean material with incidental discovery of RACS shall be managed as follows:

i. If a CABI was continually inspecting the material during generation, remove the piece of ACM and one (1) foot of material in all directions, with CABI confirmation that the visible extent of RACS has been removed. If more than one (1) piece of ACM, or a pocket of ACM is discovered, remove the pocket of ACM plus one (1) foot of material in all directions, with CABI confirmation that the visible extent of RACS has been removed. Material that remains after removal of RACS, and CABI visible confirmation, is not

considered RACS, is not subject to Section 5.5, and may be appropriate for unrestricted reuse, onsite or offsite, as long as it does not contain any other regulated material.

ii. If a CABI was not continually inspecting the material during generation, an intrusive inspection of the pile shall be conducted to determine the extent of RACS contamination, followed by the removal of the visible extent of contamination plus removal of one (1) foot of material in all directions. Alternatively, the entire pile, plus three (3) inches of material below the pile, shall be removed and managed as RACS. If the pile was placed on top of a durable surface such as concrete or asphalt, the surface shall be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(2) Stockpiling, as defined in Section 1.2 of these regulations, is the accumulation and storage of RACS that will exist for more than twelve (12) hours, up to and including ten (10) calendar days. The following requirements shall apply to stockpiled RACS:

(a) Stockpiled RACS shall be placed on a minimum of 6 mil polyethylene sheeting or shall include removal, and management as RACS, of a minimum of three (3) inches of soil, or other matrix material, from under the entire area of RACS stockpiling after stockpile removal. If the stockpile was placed on top of a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(b) RACS shall be adequately wet during disturbance.

(c) Stockpiled RACS shall be controlled per Section 5.5.7(A).

(d) Stockpiled RACS shall be stabilized by:

i. Polyethylene sheeting or geotechnical fabric with daily inspection, and inspection no later than twelve (12) hours following storm events, and repair/replace sheeting as necessary to maintain stabilization; or
ii. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) with weekly inspection, and inspection no later than one (1) calendar day after storm events, and re-application of chemical stabilizer as necessary to maintain stabilization; or
iii. Minimum of three (3) inches of soil appropriate for unrestricted use.

(e) For stockpile areas that are non-contiguous with the RWA, transportation of RACS shall be conducted in accordance with the following:

i. Transportation equipment tires shall not contact RACS; or
ii. The tires shall be decontaminated per Section 5.5.7(I) before leaving the RWA; or
iii. The haul road shall be managed as RACS for stabilization, per Section 5.5.7(H)(2)(d), and future removal of a minimum of three (3) inches of soil, or other matrix material. If the road is constructed of a durable surface such as concrete or asphalt, the surface shall be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(f) For a stockpile that was previously thought to be free of RACS, but where RACS is subsequently identified, the procedure outlined in Section 5.5.7 (H)(1)(c) shall be followed.

(3) Storage of RACS exceeding ten calendar days shall require the submission of a RACS Storage Plan. Storage of RACS shall not commence prior to approval of the RACS Storage Plan by the Department's Hazardous Materials and Waste Management Division. The RACS Storage Plan shall include:

(a) Approval of storage with signature from the property owner; and

(b) Volume of RACS intended for storage; and

(c) Liner design or provisions for removal of a minimum of three (3) inches of underlying material; and

(d) Storm water design including protections for run-on and run-off; and

(e) Cover design or use of an equivalent durable stabilizer; and

(f) Access control and signage; and

(g) Storage timeframe (shall not exceed six (6) months unless an extended storage timeframe is approved by the Department and complies with local governing authority requirements); and

(h) Inspection and maintenance schedule; and

(i) Closure and removal requirements; and

(j) Documentation and reporting; and

(k) Certification of any designed elements by a Colorado registered Professional Engineer.

(4) Temporary sub-surface storage of RACS in areas of future planned RACS removal shall not exceed six (6) months and shall comply with the following:

(a) RACS may only be placed within the Area of Contamination (AOC) that it was originally removed from.

(b) Placement of RACS utilizing standard RACS management requirements in accordance with the standard requirements of Section 5.5.7, an approved PSRMP, or an approved SOP.

(c) Cover RACS in accordance with the requirements of Section 5.5.7(K).

(d) RACS not removed within six (6) months (unless an extended storage timeframe is approved by the Department), shall be considered disposal in accordance with Section 5.5.8(A), or reuse within an AOC and will require an environmental covenant in accordance with Section 5.5.8(B)(1).

(5) Offsite staging, stockpiling, and storage of RACS are allowed as long as they comply with the disposition requirements of Section 5.5.8.

(l) DECONTAMINATION

(1) Requirements applicable to all projects subject to Section 5.5:

(a) Personnel Decontamination:

i. Remove booties and/or gloves before exiting RWA and dispose as asbestos contaminated waste; or
ii. If not using disposable PPE, decontaminate boots in a boot wash station, remove gloves after exiting the boot wash station, and dispose of gloves as asbestos contaminated waste. Rinsate from the boot wash station shall be collected, filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility, or re-applied to RACS that will be managed under these regulations.

(b) Decontamination of Equipment or Surfaces that have come into Contact with RACS

i. For equipment that comes into contact with RACS:

1. Wet decontamination on a decontamination pad (minimum 10 mil poly or other durable non-permeable barrier) followed by CABI inspection and verification of equipment decontamination before it leaves the decontamination area. All decontamination liquids and solids shall be contained, and run-on and run-off shall be prevented. Rinsate/runoff shall be collected, filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will

be managed under these regulations. For breaches in the decontamination pad where RACS or water contaminated with asbestos may have impacted the material below the decontamination pad, implement the provisions of Section 5.5.7(J);

and/or

2. Decontamination using HEPA vacuums followed by CABI inspection and verification of equipment decontamination before it leaves the decontamination area.

(c) Protection of Clean Equipment and Surfaces:

i. Keep all equipment off of RACS; or
ii. Protect clean surfaces from coming in contact with RACS by covering equipment surfaces or RACS surfaces with polyethylene sheeting or equivalent durable impermeable covering. For onsite movement of excavation equipment between RWAs, where only the excavator bucket has come in contact with RACS, the bucket shall be wrapped in polyethylene sheeting (minimum 6 mil) prior to movement. Protective coverings shall be cleaned, repaired, or replaced as necessary. If protective coverings are breached and RACS or asbestos contaminated water comes into contact with underlying material, the provisions of Section 5.5.7(J) shall be followed. Coverings that have come in contact with RACS shall be disposed as asbestos contaminated waste.

(2) Additional Requirements for Projects Disturbing RACS Containing Friable ACM:

(a) Remove disposable impermeable suits or equivalent coveralls before exiting RWA and dispose as asbestos contaminated waste, or

(b) After removal of suits or coveralls, conduct full wet decontamination prior to exiting RWA with collection of rinsate and filtration to less than 5 microns and discharge to a sanitary sewer or other Department-approved disposal facility. Re-application of decontamination shower water is prohibited.

(J) RACS SPILL RESPONSE

(1) Areas where RACS is spilled are RWAs until clean up is completed.

(2) Spilled material shall be cleaned up immediately and not allowed to dry out or accumulate on any surface. The Department's Hazardous Materials and Waste Management Division shall be notified, through the spill reporting hotline, in the event that spills of RACS cannot be cleaned up within 24 hours of spill identification.

(3) Where there are breaches in ground coverings that have the potential to allow RACS or water contaminated with asbestos to impact the material below the covering, a minimum of three (3) inches of soil, or other matrix material, shall be removed from beneath the breached ground coverings. Visual or measured (e.g. survey) confirmation that three (3) inches of soil and/or other matrix material from beneath the breached covering has been removed shall be conducted. If ground coverings are placed on top of a durable surface such as concrete or asphalt, the surface shall be decontaminated using wet methods, followed by CABI inspection that all soil and debris has been removed from the surface.

(4) Rinsate, runoff, or any other water that has come into contact with RACS shall be considered to be asbestos contaminated water and shall be collected and filtrated to less than 5 microns and discharged to a sanitary sewer or other Department-approved disposal facility or re-applied to RACS that will be managed under these regulations.

(5) Surfaces that are contacted by asbestos contaminated water shall be managed as RACS as per Section 5.5.7(J)(3) or permanently stabilized as per Section 5.5.7(K).

(6) If work practices in an RWA are causing an ongoing spill outside the RWA, the work practices shall cease or be modified to prevent additional releases.

(K) REQUIREMENTS FOR EXPOSED RACS REMAINING IN PLACE

(1) Any remaining RACS that has been exposed by the soil disturbing activity, but is not disturbed, such as an excavation side-wall or bottom shall be covered or stabilized using one of the following:

(a) Cover RACS with geofabric, followed by eighteen (18) inches of fill suitable for unrestricted use, and vegetation; or

(b) Cover RACS with geofabric, followed by six (6) inches of fill suitable for unrestricted use, and concrete or asphalt; or

(c) Cover RACS with geofabric, followed by fill suitable for unrestricted use to grade or six (6) inches, whichever is greater, for vertical excavation faces or trenches; or

(d) Alternate cover designs as approved by the Department.

(L) DOCUMENTATION

(1) The documents listed below shall be maintained during a project and available for Department review upon request. However, this documentation need not be submitted to the Department unless requested. CABI and AMS notes may be collected by one individual if they possess both certifications; however, if no AMS is onsite the CABI shall provide items listed in the AMS notes section (e.g. wind monitoring and shutdown events). CABI and AMS notes may be taken by another individual, but shall be reviewed, approved, and signed by the CABI or AMS for whom the notes are being taken. Other appropriate personnel may also provide the following documentation.

(a) CABI/QPM Notes shall include documentation of:

i. Site description including location; and
ii. Descriptions of site activities; and
iii. Descriptions of equipment in use; and
iv. Descriptions of hand removals (including locations); and
v. Descriptions of types of debris identified; and
vi. Descriptions of suspect material identified; and
vii. Friability of ACM identified (as determined by a CABI); and
viii. Sampling, if conducted (all sampling shall be conducted by a CABI); and
ix. Decontamination visual inspection and clearances; and
x. Excavation visual inspection and clearances; and
xi. Spill response activities; and
xii. Observations of visible emissions and responses; and

xiii. Observations of non-earthen material or the appearance of fill; and
xiv. Observations of other indicators of impact to soils.

(b) AMS notes shall include documentation of:

i. Wind speed measurements; and
ii. Prevailing wind direction(s); and
iii. Wind shut down event(s); and
iv. Initial air sample locations; and
v. Air sample relocation notes; and
vi. Observations of visible emissions and responses; and
vii. Notes pertaining to sample malfunctions (pump faults, overloading, etc.); and
viii. Instances of samples being compromised (samples knocked over, sample filters being sprayed with water, samples physically impacted by equipment, etc.); and
ix. Air sample data (flow rates, time of sampling, volumes, calibration method, etc.).

(c) General documentation shall include:

i. Disposal records; and
ii. Analytical reports including chain of custody forms; and
iii. Evaluations of any samples with a "cannot be read" analysis result and the notifications of these events to the Department; and
iv. Location of known remaining RACS; and
v. Creation and removal dates for, and locations of, staged, stockpiled, and/or stored RACS; and
vi. Stockpile and staging pile inspection logs and documentation of weather events requiring inspection; and
vii. Logs of all site personnel with access to the RWA; and
viii. Certification records for all CABIs and AMSs utilized on the project, and
ix. Records for training conducted in accordance Sections 5.5.3(A) and 5.5.3(B); and
x. Records demonstrating the QPM(s) meet the training and experience requirements set forth in Section 5.5.3(C); and
xi. ECP(s) generated during the project.

5.5.8 PACKAGING AND DISPOSITION OF REGULATED ASBESTOS CONTAMINATED SOIL (RACS)

(A) Disposal of RACS

(1) RACS containing one percent (1%) or greater of friable ACM (as determined in the field by a CABI) by volume per load or container, based on visual estimation through continuous visual inspection or other Department-approved quantifiable means of measurement, shall be packaged in a leak tight container and disposed as friable asbestos waste, in accordance with Section 5.3 of these regulations. Alternatively, a friable ACM determination by a CABI is not required if the disposal load is assumed to be RACS containing 1% or greater of friable ACM and is packaged and disposed of in accordance with Section 5.3 of these regulations. Documentation shall accompany each load of RACS removed from the site stating that soil originating from this site shall not be used as daily cover or reused offsite.

(2) For RACS containing:

(a) Less than one percent (1%) of friable ACM (as determined in the field by a CABI) by volume, per load or container, based on visual estimation through continuous visual inspection, or other Department-approved quantifiable means of measurement, shall be packaged in a leak tight container and disposed in a manner similar to non-friable asbestos waste, as described in Section 5.2 of these regulations. Documentation must accompany each load of RACS removed from the site stating that soil originating from this site shall not be used as daily cover or reused offsite.

(b) Except as provided by Section 5.5.8(A)(3), only visible non-friable ACM (as determined in the field by a CABI) that has not been rendered friable, or RACS that contains no visible ACM, shall be packaged in a leak tight container and disposed of as non-friable asbestos waste in accordance with Section 5.2 of this Part 5. Documentation shall accompany each load of RACS removed from the site stating that soil originating from this site shall not be used as daily cover or reused offsite.

(c) A total volume of debris that is less than 1% of the disposal load, based on visual estimation through continuous visual inspection, and the debris is all assumed to be RACS, then a CABI is not required to make a friable ACM determination.

(3) Owners/operators may utilize alternative packaging for RACS, that contains only non-friable ACM and/or asbestos fibers in soil, that ensures that there are no visible emissions during transport to or from the landfill. The alternative packaging must also be acceptable to the disposal facility accepting the waste. A written notice shall be submitted to the Department at least forty-eight (48) hours prior to the alternative packaging being used. If alternative packaging will be used for material that contains any amount of friable asbestos waste, the alternative packaging shall be in accordance with Section 5.3.5 of the Regulation.

(4) A Design and Operations (D&O) plan shall be submitted to, and approved by, the Department for onsite disposal of RACS outside of the AOC, in accordance with the Colorado Solid Wastes Disposal Sites and Facilities Act (C.R.S. 30-20, Part 1) and these regulations. The packaging requirements set forth above in Section 5.5.8(A)(1-2) are not required for onsite disposal, but the requirements of Section 5.5.5(A)(2)(e) are applicable. An environmental covenant, in accordance with 25-15-320, C.R.S., is required for onsite RACS disposal, and a Certificate of Designation shall be required, in accordance with Section 1.6 of these regulations, unless exempt under Section 1.4.

(B) Onsite reuse of RACS:

(1) A plan for reuse of RACS within the footprint of the AOC shall be submitted to the Department for review and approval prior to implementation and shall comply with Section 5.5.5(A)(2)(e), and the following cover requirements:

(a) Cover RACS with geofabric, followed by eighteen (18) inches of fill suitable for unrestricted use, and vegetation; or

(b) Cover RACS with geofabric, followed by six (6) inches of fill suitable for unrestricted use, and concrete or asphalt; or

(c) Cover RACS with geofabric, followed by fill suitable for unrestricted use to grade or six (6) inches, whichever is greater, for vertical excavation faces or trenches; and

(d) The final grades shall promote surface water run-off and minimize erosion, and shall have slopes no less than 5% (20:1) and no greater than 25% (4:1); or

(e) Alternate cover designs as approved by the Department; and

(f) An environmental covenant, in accordance with 25-15-320, C.R.S., may be required for onsite reuse of RACS.

(2) A plan for beneficial reuse of RACS outside the footprint of the AOC, in accordance with Section 8.6, shall be submitted to the Department for review and approval prior to its implementation. The plan shall include provisions for covering RACS and shall comply with the management requirements of Section 5.5.5(A)(2)(e). Additionally, the cover requirements outlined in Section 5.5.7(K) shall be adhered to. An environmental covenant, in accordance with 25-15-320 C.R.S. may be required for beneficial reuse of RACS.

(C) Demonstration of Non-RACS

(1) Soil or other matrix material initially determined to be RACS may be demonstrated not to be RACS based on visual inspection, removal of all ACM, and sampling and analysis of the remaining material showing no detectable asbestos. Sampling and analysis shall be conducted in accordance with Appendix 5A. If there is no detectable asbestos, this material is no longer subject to Section 5.5 and may be appropriate for unrestricted use, onsite or offsite, as long as it does not contain any other regulated material.

5.5.9 FEES

The Department shall collect fees, from the owner, operator, or person conducting the soil disturbing activity, based on total documented costs, in accordance with Section 1.7

APPENDIX 5A
SAMPLE COLLECTION PROTOCOLS AND ANALYTICAL METHODOLOGIES

1.0 Purpose

(A) The purpose of this appendix is to establish standard sample collection requirements and analytical methods and procedures for use in identifying and quantifying asbestos fibers in air, bulk material, and environmental media such as soil or ash.

2.0 Sample Collection Requirements

(A) The following sample collection requirements shall be followed when collecting samples for the purpose of determining the applicability of Section 5.5, and when collecting samples necessary to comply with the requirements of Section 5.5. Remediation plans submitted in accordance with Section 5.5.6 shall include a site specific sampling and analysis plan that incorporates the sample collection methodologies and analytical procedures in this Appendix, or proposes alternatives, and include site specific clearance criteria.

2.1 Bulk Samples

(A) Bulk samples shall be collected, in a manner sufficient to determine whether the material is asbestos-containing material (ACM) or not ACM, from each type of suspect ACM. Bulk samples shall be collected by a State of Colorado certified Asbestos Building Inspector (CABI). In the absence of bulk sample collection, any suspect ACMs must be assumed to be ACMs.

(B) Bulk samples shall be collected by homogenous type based on color, pattern, texture, thickness, associated materials, or by other identifying characteristics. Additionally, the quantity and location of a suspect material shall be used to determine the number of bulk samples required to characterize the asbestos content of each homogeneous suspect material. For the purpose of determining that a homogeneous suspect material does not contain asbestos, a minimum of three (3) bulk samples shall be collected from the homogeneous material unless there is insufficient material to constitute three (3) samples. If one of the collected samples of a homogeneous bulk material is determined to be ACM, then the homogeneous material shall be considered ACM.

2.2 Soil Samples

(A) Samples collected to determine asbestos content in soil shall be ten (10) point aliquot composite samples collected from a maximum area of 1,250 square feet (representing 0-6 inches beyond the exposed surface) or a maximum volume of forty (40) cubic yards. Individual aliquots shall be approximately 1/10 of the entire sample volume. At each aliquot location approximately one (1) tablespoon of soil shall be collected. The total volume of the ten (10) aliquots should equal roughly a half cup. The total collected sample volume should be greater than one quarter (¼) cup, but should not exceed one cup. Aliquot locations shall be randomly selected but shall be representative of the entire sample area or volume (to be inclusive of the interior of soil piles in addition to the surface). However, aliquots shall be co-located with any areas where friable ACM was formerly present. All samples collected to determine asbestos content shall be collected by a CABI.

(B) Sampling for clearance purposes of any exposed horizontal or vertical surface shall have the following additional requirements:

1) The aliquots of a clearance sample shall not be collected until after the RACS, and the required amount of associated material, has been removed.

2) A visual inspection shall be performed and passed (i.e., no visible ACM present) by a CABI prior to the collection of soil samples. Visual inspections shall include the following:

a) The area to be cleared shall be designated before the visual inspection; and
b) Former locations of friable materials shall be designated; and
c) The surface being inspected shall be dry enough to allow identification of suspect ACM; and
d) The visual inspection shall be conducted in adequate lighting; and
e) The area to be cleared shall be free of visual impediments (e.g. snow cover, plastic sheeting, standing water, etc.); and
f) At a minimum, the area to be cleared shall be inspected in at least two (2) perpendicular directions; and
g) Single or multiple inspectors may be used to perform a visual inspection and clearance. However, a single inspector shall not visually inspect more than a five (5) foot width with each pass [i.e. for a clearance area that is 25’ x 50’ a single inspector would be required to

make at least five (5) passes in one direction (25' length) and at least ten (10) passes in the other direction (50' length)]; and

h) Detailed close examination of the area being cleared is required. The inspector(s) should use limited invasive inspection techniques, such as periodically sifting the surface being cleared and closely inspecting the disturbed area.

3) If sidewalls with six (6) inches or greater of vertical height are present, independent ten (10) point aliquot composite samples shall be collected from each of the sidewalls and the floor of the excavation.

2.3 Ash Samples

(A) Ash that contains, or is comingled with, suspect ACM and/or construction and demolition debris shall be considered to be RACS unless the ash is sampled, and analysis demonstrates that the ash is not RACS. Representative samples of each type of ash materials shall be sampled and analyzed in the same manner as soil (including area/volumetric limitations of sampling). Ash samples shall be collected by homogenous strata, location, content of other surrounding material, or other observations indicating heterogeneity of the ash present. All samples collected to determine asbestos content shall be collected by a CABI. In the absence of suspect ACM or construction and demolition debris, and in the absence of documented evidence of non-visible asbestos, ash material may be treated as non-RACS.

2.4 Cross Contamination Prevention

(A) All sample collection equipment shall be decontaminated in a manner sufficient to prevent cross contamination between individual samples or individual composite samples. Decontamination is not required between the collection of aliquots comprising a single composite sample.

2.5 Air Samples for Standard RACS Management

(A) Air samples shall be collected by drawing air through 0.8-micron (µm), 25-millimeter (mm), mixed cellulose ester (MCE) filters, using an open-faced cowl extension oriented face down at an angle of 45°. Sample flow rate shall be between 0.5-10 liters per minute depending on the anticipated duration of sampling and the specified detection sensitivity. The air sampling equipment shall be run until the minimum volume required is collected for each sample. However, if the minimum air volume required by the method, and/or to reach the required analytical sensitivity, being

utilized cannot be met, the State of Colorado trained and certified Air Monitoring Specialist (AMS) shall request that the laboratory prepare the sample using an indirect preparation method, for TEM presence/absence analysis. Air samples shall be collected at a height that is representative of the disturbance activity taking place. However, air samples shall be located at a height between three (3) feet above the ground surface but not to exceed twenty (20) feet above the ground surface. Air samples shall be collected by an AMS.

2.6 Air Samples for Risk-Based Air Threshold Monitoring

(A) Air samples shall be collected by an AMS. Air monitoring shall be conducted during each partial or full day of soil management activities using fixed and mobile monitors as follows:

1) A minimum of four (4) samples shall be collected for each regulated work area (RWA).
2) For the purpose of determining the number of samples necessary, each RWA shall be divided into four (4) equal quadrants. A minimum of one (1) sample shall be collected for each quadrant with an adjacent receptor zone.
3) If an RWA is greater than one (1) acre, one (1) additional sample for each quadrant with an adjacent receptor zone shall be collected and analyzed for each additional one quarter (¼) acre in RWA surface area.
4) Samples shall be located along the RWA perimeter, between the RWA and each adjacent receptor zone. Samples shall be placed between the RWA and any fixed adjacent receptor(s). In the absence of fixed adjacent receptors, sample placement shall be at the AMS's discretion.
5) The sample volume shall be the minimum necessary to meet analytical sensitivity.
6) Samples shall be collected by drawing air through 0.8-micron (µm), 0.25-millimeter (mm), mixed cellulose ester (MCE) filters, using an open-faced cowl extension oriented face down at an angle of 45°.

3.0 Analytical Requirements

(A) The following analytical methods shall be used to evaluate the presence of asbestos and/or to determine asbestos content when analyzing samples for the purpose of determining the applicability of Section 5.5, and when analyzing samples collected in accordance with Section 5.5:

3.1 Bulk Samples

(A) Samples of suspect ACM shall be analyzed by polarized light microscopy (PLM), according to United States Environmental Protection Agency (USEPA) Method EPA/600/R-93/116 or equivalent method, to determine if any asbestos fibers are present. If the asbestos content of a sample is estimated to be 1% asbestos or less, but greater than 0%, by a method other than point counting (such as visual estimation), the determination shall be repeated using the point counting technique with PLM. Alternatively, the material may be assumed to be ACM. Analysis shall be conducted by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory.

3.2 Soil Samples and Ash Samples

(A) Prior to preparation of a soil or ash sample, bulk materials shall be separated from the soil or ash sample for independent analysis. Any bulk materials identified in a soil or ash sample that contain any amount of asbestos shall be reported as independent layers of the whole sample. The samples shall be adequately prepared (crushed and dried) to facilitate stereomicroscopic analysis by the laboratory. The goal of the preparation process should be to produce dried conglomerates of approximately one eighth inch (1/8") to one quarter inch (¼") size. Rock and/or stone material does not need to be crushed (this process is not intended to be homogenization). Soil and ash samples shall be analyzed by PLM according to USEPA Method EPA/600/R-93/116 to determine if any asbestos fibers are present. Analysis shall be conducted by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory. During the stereomicroscopic analysis (10X – 50X) of the soil/ash sample the analyst shall sift through the sample at a rate of approximately one (1) tablespoon per minute. At the end of the stereomicroscopic analysis the sample shall be agitated or shaken as a final check for asbestos prior to the preparation of PLM grab mounts. At no time during the stereomicroscopic analysis shall a sub sample be collected. The entire sample shall be analyzed and the results reported. If no asbestos was identified by PLM after the initial stereomicroscopic examination, then three (3) random grab mount preparations shall be analyzed by PLM to determine if the sample is none detected for asbestos content. If any asbestos is found by the laboratory it shall be reported even in the absence of a second detection (i.e. there does not need to be a second detection to qualify a trace level of asbestos in the sample). Quantification of asbestos content shall be based on the entire sample volume, and be reported as such.

3.3 Air Samples for Standard RACS Management

(A) Air samples submitted for Phase Contrast Microscopy (PCM) shall be analyzed according to NIOSH Method 7400 by a laboratory showing successful participation in the American Industrial Hygiene Association (AIHA) Proficiency Analytical Testing (PAT) Program or individual(s) certified through the AIHA Asbestos Analysts Registry (AAR) Program.

(B) Air samples submitted for Transmission Electron Microscopy (TEM), for which quantification of asbestos is desired, shall be prepared and analyzed according to the standard Asbestos Hazard Emergency Response Act (AHERA) method (AHERA; 40 CFR Part 763, Subpart E, Appendix A). All TEM analysis shall be performed by a NVLAP accredited laboratory. If a presence/absence analysis is desired, the analysis shall be performed using the AHERA method modified in the following manner:

1) A minimum of two (2) preparations shall be prepared and utilized for each sample.
2) Analysis shall be conducted on a minimum of four (4) grid openings or until three (3) or more structures are identified, whichever comes first.
3) Any structure (adhering to the AHERA counting rules) identified during analysis shall be reported.
   a) Identification of less than three (3) structures shall be reported as present.
   b) Identification of three (3) or greater structures shall be reported as detected.

(C) Any air sample analysis that results in a "cannot be read (CBR)" determination from the analyst, or a "not analyzed (NA) or rejected" due to loose debris or uneven loading, shall be evaluated by the AMS to determine if a cause of the CBR or NA can be ascertained. If it is determined that the CBR is a result of overloading from airborne emissions, then the AMS shall request that the laboratory prepare the sample, using an indirect preparation method, for TEM presence/absence analysis.

3.4 Risk-Based Air Threshold Samples

(A) Air samples collected for TEM analysis shall be submitted to a NVLAP accredited laboratory. Samples shall be analyzed by TEM according to ISO Method 10312 with the following modifications for PCM equivalent (PCMe) structures:

1) An aspect ratio of 3:1 shall be used when counting structures greater than 5 µm in length, rather than the 5:1 ratio specified in the method.
2) A width range of 0.25 to 3 µm will be used when counting PCMe structures, rather than the 0.2 to 3 µm specified in the method.
3) A minimum of ten grid openings will be counted, rather than the minimum of four (4) grid openings specified in the method.
4) Calculations shall be made based on total fibers rather than primary fibers.

(B) The maximum number of grid openings (GOs) to be counted to achieve the specified analytical sensitivity shall be estimated as follows:

Number of GOs = EFA ÷ (A_{GO} x V x S x CF)

where:
EFA = effective filter area (385 for a 25-mm filter)
A_{GO} = area of a grid opening (approximately 0.01 mm2; actual value to be provided by the analytical laboratory)
V = volume of air sampled (in liters [L])
S = analytical sensitivity (structures per cubic centimeter [s/cc])
CF = conversion factor (1000 cc/L)

(C) Any air sample analysis that results in a "cannot be read (CBR)" determination from the analyst, or a "not analyzed (NA) or rejected" due to loose debris or uneven loading, shall be prepared by the laboratory, using an indirect preparation method, for TEM presence/absence analysis.

3.5 Data Evaluation for Risk-Based Air Threshold Samples

(A) General requirements:

1) Samples collected for comparison to risk-based air thresholds shall be evaluated based on the average (mean) concentration over the exposure duration.
2) All valid data shall be used to calculate daily and ten (10) day rolling averages.
3) For all projects a minimum of three (3) samples per day must have quantifiable data (not CBR or rejected). If less than three (3) quantifiable analytical results are available then the daily average is invalid.

(B) Project days 1-9:

1) The results of the daily samples must be averaged to calculate a daily average for use in comparing to the risk based air threshold for days 1-9 of monitoring.
2) A ten (10) day average shall be calculated for days 1-9. The ten (10) day average shall be comprised of at least eight (8) valid daily average results. However, all valid data shall be used to calculate the ten (10) day average.
3) If the ten (10) day average exceeds the risk-based air threshold, engineering controls shall be adjusted to reduce the daily average.
4) The Department shall be notified within 24 hours if the calculations in paragraphs 1 and 2 above cannot be completed due to invalid data.

(C) Project days 10 and greater:

1) Starting on day 10, a ten (10) day rolling average shall be calculated and compared to the risk-based threshold.
2) If average concentration trends indicate the risk-based air threshold will be exceeded before project completion, engineering controls shall be adjusted to reduce the daily asbestos emissions.
3) If subsequent evaluation of average concentration trends indicates that the risk-based air threshold will still be exceeded before project completion, additional adjustments to engineering controls shall be made.
4) If changes in engineering controls are not effective in reducing airborne concentration trends such that the risk-based air thresholds can be met, consultation with the Department is required.
5) The Department shall be notified within five (5) working days if the averaged airborne asbestos concentration for the entire project exceeds the risk-based air threshold.

4.0 Documentation

(A) All of the following sampling and analytical documentation shall be maintained during a project and available for Department review upon request. This documentation need not be submitted to CDPHE unless requested or as required in a project specific plan.

1) Documentation of bulk, soil, and ash samples shall include:

a. A description of the material being sampled including friability.

i. For samples collected for characterization purposes also include an estimate of the quantity of visible suspected RACS present.
ii. For samples of ash, also include a brief description of the ash layer, and any associated identifiable debris.

b. Name of person collecting the sample(s).
c. Date and time of sample collection.
d. Location of sample collection (a map, drawing, or diagram showing sample locations in relation to the work area and surrounding area).
e. The boundary/limits that are represented by the collected sample.
f. Chain of custody documentation.
g. Laboratory analysis reports.
h. Log of characterized homogeneous bulk materials including material descriptions, photographic documentation, and asbestos content.

2) Documentation of air samples shall include:

a. Name of person collecting the sample(s).
b. Date and time(s) of sample collection.
c. Locations of air sample collection.
d. Any relocation of air samples.
e. A map, drawing, or diagram showing air sample locations (initial and relocations) in relation to the work area and the surrounding area.
f. Chain of custody documentation.
g. Laboratory analysis reports.
h. Explanation of any air sample malfunctions and any voided air samples.
i. Risk based air threshold concentration calculations.
j. Air sample data (flow rates, time of sampling, volumes, calibration method, etc.).
k. Wind speed measurements.
l. Prevailing wind directions.
m. Wind shut down events.
n. Observations of visible emissions and responses.

5.0 Deviations from Sampling and Analysis Procedures

(A) Deviation from this sampling and analysis appendix shall only be allowed upon consultation with, review by, and approval from, the Department.

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ERO

Consultants in Natural Resources and the Environment

Environmental Records Review
Thornton Water Project CIP 12-777
Future Source Water Pump Station
Larimer County, Colorado

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May 2026

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Summary

The City of Thornton (COT) retained ERO Resources Corporation (ERO) to conduct an Environmental Records Review (ERR) for the Thornton Water Project (TWP) (CIP 12-777) future Source Water Pump Station (SWPS) in Larimer County, Colorado (hereafter called the "project area"). This ERR consists of a review of historical information and federal, state, and local records to identify areas of concern.

Project Area Description. The project area consists of approximately 4.8-acres of the future SWPS with a 500-foot "buffer zone" across undeveloped and submerged lands in Larimer County, Colorado. Historically, the project area has been undeveloped and part of the Water Supply and Storage Company (WSSC) Reservoir No. 3 or Rocky Ridge Lake Reservoir No. 1. The surrounding area has been similarly undeveloped and/or part of the adjacent reservoirs.

Records Review. ERO reviewed publicly accessible federal, state, and local records for sites or incidents that may indicate a release or disposal of hazardous materials or petroleum products within the project area. Available information was evaluated to assess the likelihood of encountering recent or historical contamination during construction activities. Sites with a high likelihood and/or those with no documentation of conditions, and therefore present a likely potential of encountering unknown contamination, were identified as "Areas of Concern" ("AOCs").

No AOCs were identified within the project area or buffer zone.

Conclusion. Based on the information presented within this report, no AOCs associated with the project area or buffer zone have been identified.

It is ERO's professional opinion that, although no AOCs have been identified, construction activities should be familiar with the Materials Management Plan (MMP) in the event non-standard conditions are encountered.

Environmental Records Review
Thornton Water Project CIP 12-777
Future Source Water Pump Station
Larimer County, Colorado

May 2026

1.0 Introduction

The City of Thornton (COT) retained ERO Resources Corporation (ERO) to conduct an Environmental Records Review (ERR) for the Thornton Water Project (TWP) (CIP 12-777) Source Water Pump Station (SWPS) in Larimer County, Colorado (the project area). The project area and surrounding area are shown on Figure 1 and Figure 2 (Appendix A).

This ERR was performed to satisfy the Work Scope between the COT and ERO dated October 31, 2024. The conclusions in this report are based on the investigations described herein at the time this ERR was conducted; future events may alter these findings.

1.1 Location and Legal Description

The project area is in Sections 11 and 14, Township 8 South, Range 69 West of the 6th Principal Meridian in Larimer County, Colorado. The project area is shown on the figures attached in Appendix A.

1.2 Site and Vicinity General Characteristics

The project area consists of approximately 4.8-acres of the future SWPS with a 500-foot "buffer zone" within undeveloped and submerged lands in Larimer County, Colorado. Land use within the project area and buffer zone consists of reservoirs and rural residential or agricultural land. The regional area is generally rural agricultural with single-family residences and water storage reservoirs.

1.3 Physical Setting

The elevation within the project area is about 5,150 feet above sea level (U.S. Geological Survey [USGS] 2026). Surface geology in the area is characterized by silts and windblown sands atop the middle member of the Pierre Shale (Workman et al., 2018). Although the depth to groundwater in the project area could be expected to be connected to water levels within the adjacent reservoirs, a groundwater monitoring well installed as part of the project did not report groundwater within the Pierre Shale to a depth of 40 feet below ground surface (CDWR Permit No. 338136). According to topographic information from the USGS 7.5-minute quadrangle map, surface water in the project area follows topography, flowing to the north on the north side of the project area, toward the Larimer County Canal and to the south and west in the remainder of the project area, toward the WCCS Reservoir No. 3 (USGS 2026). Based on the topography and field observations, the expected regional groundwater flow is to the south.

2.0 Records Review

2.1 Historical Use Information for the Project Area

ERO used historical aerial photographs (1948-2024) and topographic maps (1908-2022) to identify the current and historical land uses in the project area and surrounding area.

Aerial photographs from 1948 to 2024 show the project area to be undeveloped and within or between the two water storage reservoirs. Photographs from 1938 and 1942 show an irrigation canal crossing the northwest and westerly portions of the upland project area, however subsequent photographs show the northern portion of the canal to become the current outfall for the Rocky Ridge Lake to the north and the remainder of the canal to be inundated and/or become part of the current shoreline for the Water Storage Reservoir #3. Photographs from 1963 to the present show the current unimproved access roads that cross the upland project area, originating from the northern outfall and extending to the south.

Historical USGS topographic maps from 1908 to 1947 show the project area to be undeveloped and located between the Rocky Ridge Reservoir (Reservoir No. 1) to the north and the Reservoir No. 2 to the south. The connecting channel between the reservoirs is shown westerly of the current location and the Larimer County Canal is shown adjacent to the north of the project area. Maps from 1963 to 2022 continue to show the project area to be undeveloped with an unimproved access road around the perimeter of the reservoir on and adjacent to the south of the project area, enlarged compared with previous maps and renamed the Water Supply and Storage Reservoir No. 3. Maps from 2019 identify the adjacent access road to the north of the subject property as “Hood Lane” south of the reservoirs.

2.2 Standard Environmental Record Sources

ERO contracted with a commercial database search company, Environmental Data Resources, Inc. (EDR), to conduct a search of publicly available database records for the project area (EDR 2026).

No sites were identified specifically within the project area and no sites were found to be within standard search distances within the buffer zone. A summary is included in Table 1, and copies of records reviewed are in Appendix C.

Table 1. Summary of publicly available environmental records.

Record Sources	Search Distance (miles)[1]	Project area	No. of Sites in Surrounding Area
Federal NPL site list	1.0	No	0
Federal Delisted NPL site list	0.5	No	0
Federal Superfund Enterprise Management System (SEMs) list	0.5	No	0
Federal SEMS-Archive site list	0.5	No	0
Federal Resource Conservation and Recovery Act (RCRA) Corrective Action Site list	1.0	No	0
Federal RCRA Treatment, Storage, and Disposal facilities list	0.5	No	0
Federal RCRA generators list	Project area and adjoining	No	0
Federal institutional control/engineering control registries	Project area only	No	0
Federal Emergency Response Notification System list	Project area only	No	0
State NPL-equivalent sites[2]	1.0	No	0
State Comprehensive Environmental Response, Compensation, and Liability Information System-equivalent sites[2]	0.5	No	0
State landfill and/or solid waste disposal site list	0.5	No	0
State leaking storage tank list	0.5	No	0
State registered storage tank list	Project area and adjoining	No	0
State institutional control/engineering control registries	Project area only	No	0
State Voluntary Cleanup Program sites	0.5	No	0
State Brownfields sites	0.5	No	0

[1]ASTM E1527 standard search distances.
[2]In Colorado, the lead agency for National Priorities List (NPL)/CERCLA may be either the Environmental Protection Agency or the Colorado Department of Public Health and Environment (CDPHE).

2.3 Additional Environmental Record Sources

2.3.1 Colorado Energy and Carbon Management Commission Records

ERO reviewed records maintained by the Colorado Energy and Carbon Management Conservation Commission (CECMC), formerly the Colorado Oil and Gas Conservation Commission, the agency that regulates oil and natural gas exploration and production in Colorado. No records of facilities were identified within the project area or buffer zone (CECMC 2026).

2.3.2 Colorado Department of Public Health and Environment

ERO reviewed the CDPHE Hazardous Materials and Waste Management Division online mapping application for any known sites that may indicate potential AOCs on or near the project area and buffer zone. No sites of concern were identified within the project area or buffer zone (CDPHE 2026).

2.3.3 Colorado Department of Labor and Employment, Division of Oil and Public Safety

ERO did not identify any records maintained by CDLE/OPS for sites that warranted review.

2.3.4 Colorado Division of Water Resources

ERO reviewed records maintained by the Colorado Division of Water Resources (CDWR) for the project area. The CDWR has a record for a 40-foot deep groundwater monitoring well on the subject property (Permit No. 338136), installed by the City of Thornton in 2024 that is marked as a "dry hole" (CDWR 2026).

3.0 Evaluation

3.1 Findings, Opinions, and Conclusions

Based on the information presented within this report, ERO did not identify any AOC's associated with the project area or buffer zone.

It is ERO's professional opinion that, although no AOCs were identified, construction activities should be familiar with the Materials Management Plan (MMP) in the event non-standard conditions are encountered.

Environmental Professionals Statement

This assessment has been conducted in accordance with standard industry practices using publicly available information and evaluated by the persons identified below. They have the specific qualifications based on education, training, and experience to assess a property or project area of the nature, history, and setting of the subject property or project area.

Jack Denman
Environmental Professional

4.0 References

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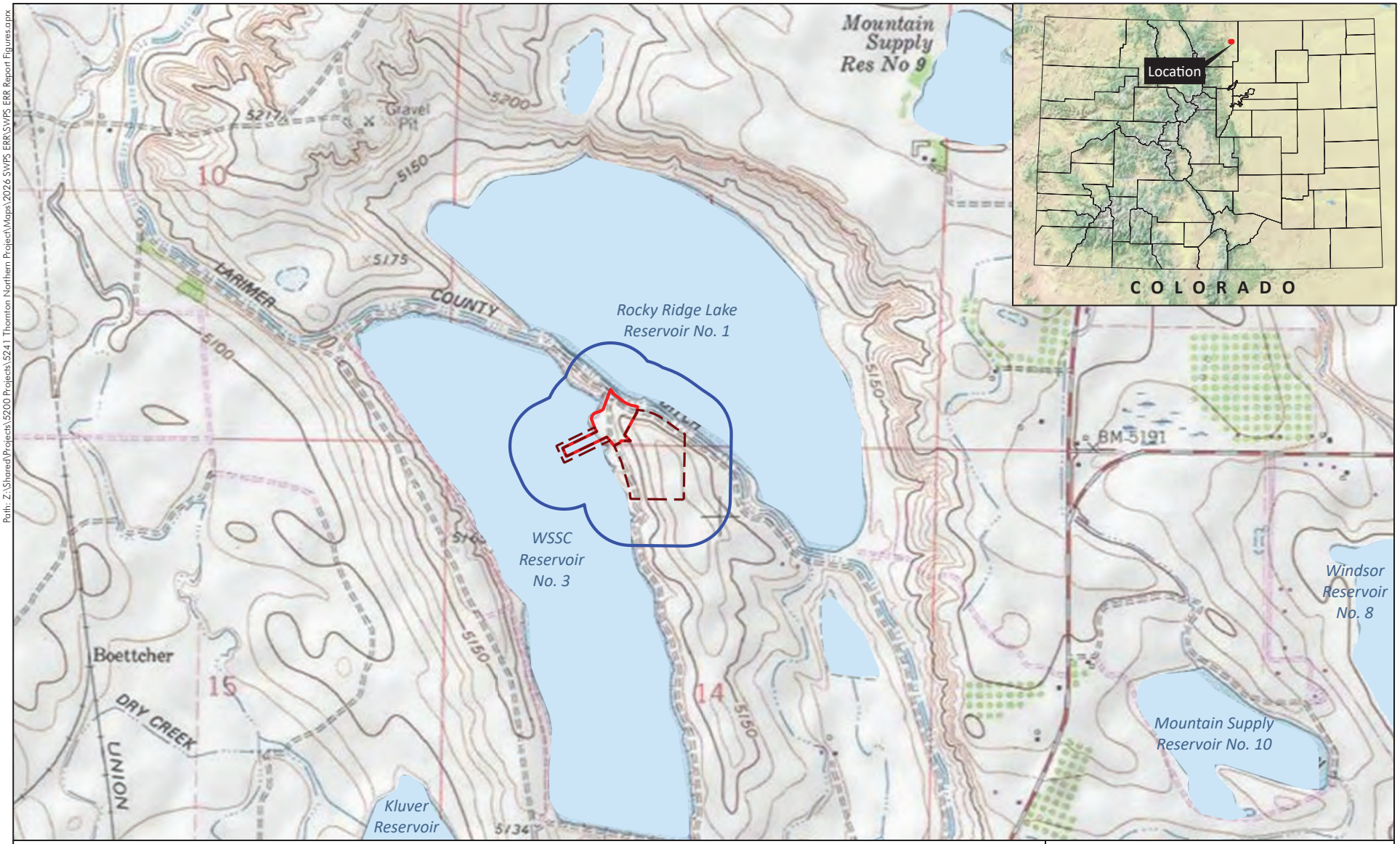
Workman, J.B., Cole, J.C, Shroba, R.R., Kellogg, K.S., and Premo. W.R. 2018. Geologic Map of the Fort Collins 30' x 60' Quadrangle, Larimer and Jackson Counties, Colorado, and Albany and Laramie Counties, Wyoming. U.S. Geological Survey, Scientific Investigations Map SIM 3399.

Appendix A Figures



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Thornton Water Project Source Water Pump Station

Sections 11 and 14, T8N, R69W; 6th PM
UTM NAD 83: Zone 13N; 492545mE, 4502053mN
Longitude 105.088202°W, Latitude 40.669322°N
USGS Wellington, CO Quadrangle
Larimer County, Colorado

- Pump Station and Intake Permanent Easement
- Pump Station and Intake Temporary Easement
- 500-Foot Easement Buffer

N

0 750 1,500 Feet

Figure 1
Vicinity Map

Prepared for: City of Thornton
File: SWPS ERR Report Figures.mxd [dlH]
May 18, 2026

ERO Resources Corp.

Path: Z:\Shared\Projects\5200 Projects\5241 Thornton Northern Project\Maps\2026 SWPS ERR\SWPS ERR Report Figures.aprx

Thornton Water Project Source Water Pump Station

- Pump Station and Intake Permanent Easement
- Pump Station and Intake Temporary Easement
- 500-Foot Easement Buffer

0 200 400 Feet

N

Figure 2
Site Plan

Prepared for: City of Thornton
File: SWPS ERR Report Figures.mxd [dlH]
May 18, 2026

Vantor 5/3/2025

Appendix B Environmental Records

SWPS
Launer Lane
Fort Collins, CO 80524

Inquiry Number: 08360586.2r
May 29, 2026

The EDR Radius Map™ Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

LIGHTBOX LIVE

Open LightBox Live to access data, tools, and advanced analytics in one online platform.

http://www.web.edrnet.com/ordering/switchboard/login.aspx?s=goto_lightbox&pguid=01F42240-07FF-4B74-A0ED-A07BECE3F682

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Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	9
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 23), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

LAUNER LANE
FORT COLLINS, CO 80524

COORDINATES

Latitude (North):	40.6693650 - 40° 40' 9.71''
Longitude (West):	105.0881700 - 105° 5' 17.41''
Universal Tranverse Mercator:	Zone 13
UTM X (Meters):	492547.6
UTM Y (Meters):	4501847.0
Elevation:	5139 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	50012286 WELLINGTON, CO
Version Date:	2022

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2023
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
LAUNER LANE
FORT COLLINS, CO 80524

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ---- National Priority List
Proposed NPL ---- Proposed National Priority List Sites
NPL LIENS ---- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---- Federal Facility Site Information listing
SEMS ---- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---- RCRA - Large Quantity Generators
RCRA-SQG ---- RCRA - Small Quantity Generators
RCRA-VSQG ---- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---- Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Solid Waste Sites & Facilities
SHWF..... Solid Waste Information System Listing

Lists of state and tribal leaking storage tanks

LUST..... Leaking Underground Storage Tank List
LTANKS..... Petroleum Release Events Listing
LAST..... Leaking Aboveground Storage Tank Listing
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
LUST TRUST..... RAP Site Listing

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
UST..... Underground Storage Tank Database
AST..... Aboveground Tank List
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

AUL..... Environmental Covenants and Environmental Use Restrictions List

Lists of state and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
VCP..... Voluntary Cleanup & Redevelopment Act Application Tracking Report

Lists of state and tribal brownfield sites

BROWNFIELDS..... Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWTIRE..... Waste Tire Registrants & Haulers Listing

SWRCY Registered Recyclers Listing
HIST LF Historical Landfill List
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
ODI Open Dump Inventory
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS Open Dumps on Indian Land
DENVER CO HIST FILL Denver City & County Historic Fill Areas

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL Delisted National Clandestine Laboratory Register
CDL Meth Lab Locations
US CDL National Clandestine Laboratory Register

Local Land Records

LIENS 2 CERCLA Lien Information

Records of Emergency Release Reports

HMIRS Hazardous Materials Information Reporting System
SPILLS Spills Database
SPILLS 90 SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR RCRA - Non Generators / No Longer Regulated
FUDS Formerly Used Defense Sites
DOD Department of Defense Sites
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR Financial Assurance Information
EPA WATCH LIST EPA WATCH LIST
2020 COR ACTION 2020 Corrective Action Program List
TSCA Toxic Substances Control Act
TRIS Toxic Chemical Release Inventory System
SSTS Section 7 Tracking Systems
ROD Records Of Decision
RMP Risk Management Plans
RAATS RCRA Administrative Action Tracking System
PRP Potentially Responsible Parties
PADS PCB Activity Database System
ICIS Integrated Compliance Information System
FTTS FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS Material Licensing Tracking System
COAL ASH DOE Steam-Electric Plant Operation Data
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER PCB Transformer Registration Database
RADINFO Radiation Information Database
HIST FTTS FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS Incident and Accident Data
CONSENT Superfund (CERCLA) Consent Decrees
INDIAN RESERV Indian Reservations
FUSRAP Formerly Utilized Sites Remedial Action Program
UMTRA Uranium Mill Tailings Sites

LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
MINES MRDS ---- Mineral Resources Data System
ABANDONED MINES ---- Abandoned Mines
FINDS ---- Facility Index System/Facility Registry System
ECHO ---- Enforcement & Compliance History Information
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
UXO ---- Unexploded Ordnance Sites
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
PFAS NPL ---- Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES ---- Federal Sites PFAS Information
PFAS TRIS ---- List of PFAS Added to the TRI
PFAS TSCA ---- PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST ---- PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR ---- PFAS Contamination Site Location Listing
PFAS WQP ---- Ambient Environmental Sampling for PFAS
PFAS NPDES ---- Clean Water Act Discharge Monitoring Information
PFAS PROJECT ---- NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS ECHO ---- Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN ---- Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT ---- All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC ---- Aqueous Foam Related Incidents Listing
BIOSOLIDS ---- ICIS-NPDES Biosolids Facility Data
UST FINDER ---- UST Finder Database
UST FINDER RELEASE ---- UST Finder Releases Database
E MANIFEST ---- Hazardous Waste Electronic Manifest System
PFAS ---- PFAS Information Listing
AQUEOUS FOAM ---- Class B Firefighting Foam Contaminating PFAS Listing
ABAND AIRFIELDS ---- Abandoned & Little-Known Airfields Listing
AIRS ---- Permitted Facility & Emissions Listing
ASBESTOS ---- Asbestos Abatement & Demolition Projects
METHANE SITE ---- Methane Site Investigations - Jefferson County 1980
Methane Investig ---- Methane Gas & Swamp Findings
DRYCLEANERS ---- Drycleaner Facilities
Financial Assurance ---- Financial Assurance Information Listing
LEAD ---- LEAD
MINES ---- Permitted Mines Listing
NPDES ---- Permitted Facility Listing
UIC ---- Underground Injection Control
UMTRA ---- Uranium Mill Tailings Sites
DRYCLEANERS ---- Drycleaner Facility Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

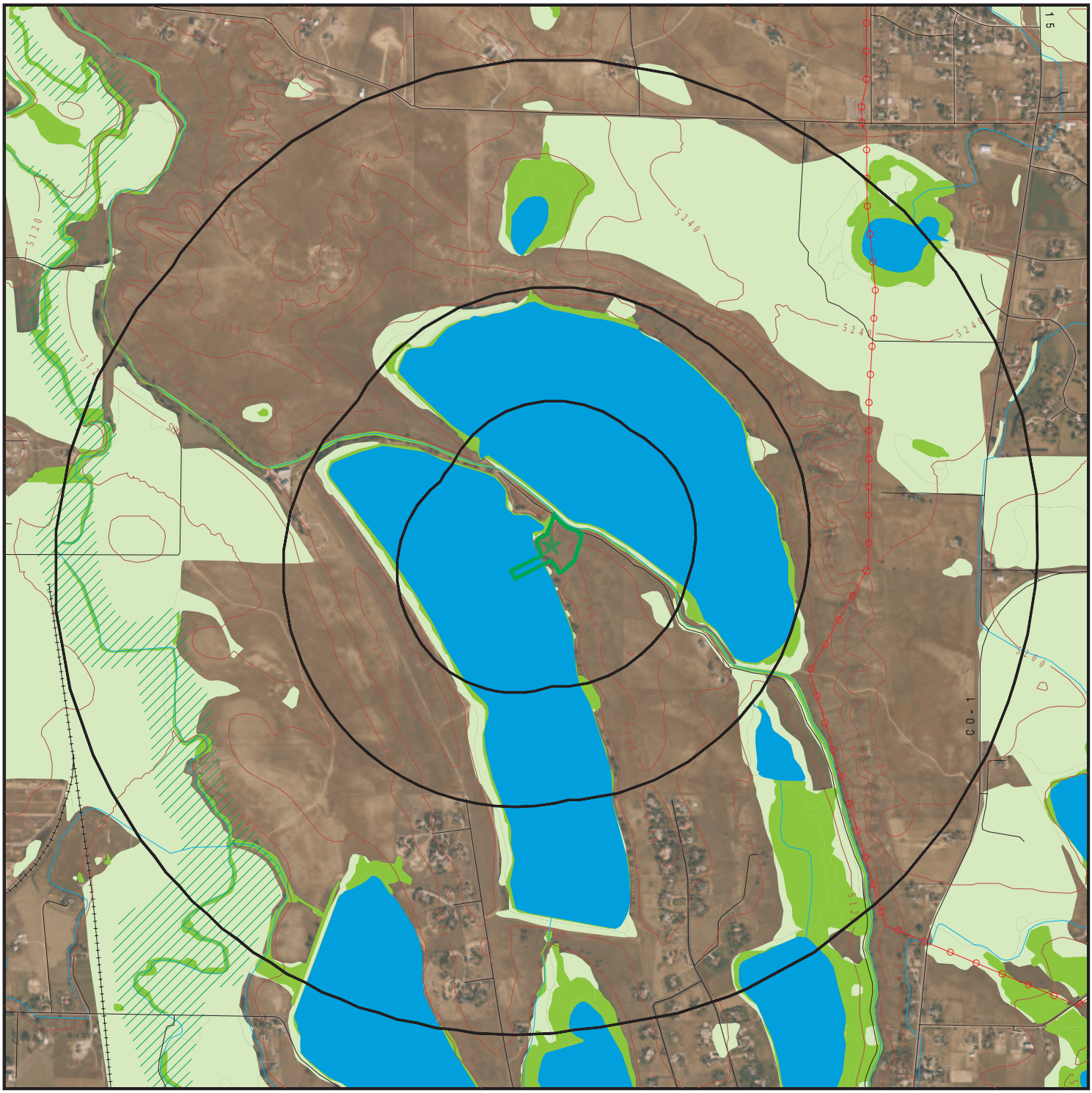
Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 08360586.2R



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

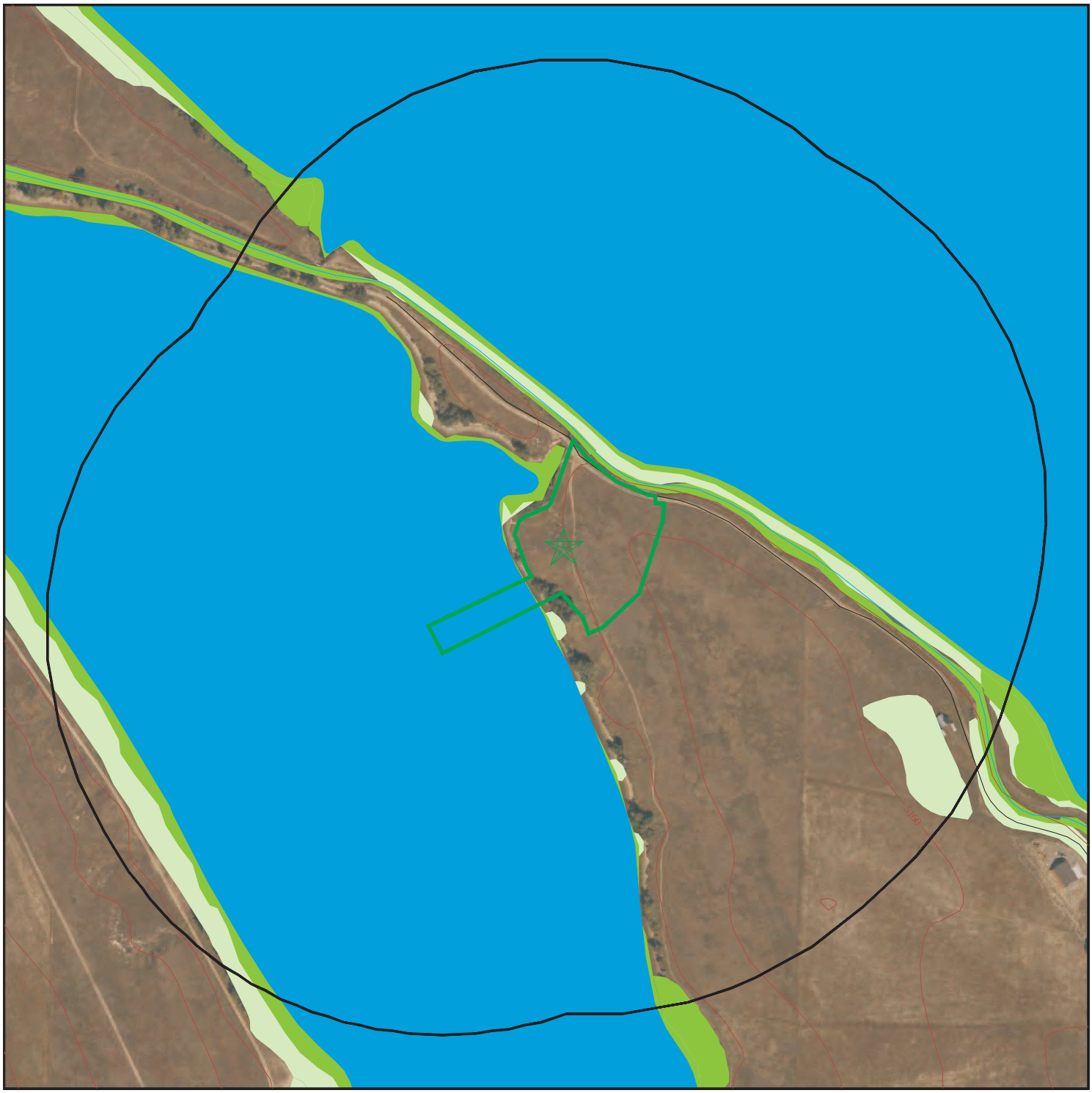
0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: SWPS	CLIENT: ERO Resources
ADDRESS: Launer Lane Fort Collins CO 80524	CONTACT: Jack Denman
LAT/LONG: 40.669365 / 105.08817	INQUIRY #: 08360586.2r DATE: May 29, 2026 1:00 pm

DETAIL MAP - 08360586.2R



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
Sensitive Receptors
National Priority List Sites
Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA
Special Flood Hazard Area (1%)
0.2% Annual Chance Flood Hazard
National Wetland Inventory
State Wetlands

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	SWPS	CLIENT:	ERO Resources
ADDRESS:	Launer Lane Fort Collins CO 80524	CONTACT:	Jack Denman
LAT/LONG:	40.669365 / 105.08817	INQUIRY #:	08360586.2r
		DATE:	May 29, 2026 1:03 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
SHWF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LTANKS	0.500		0	0	0	NR	NR	0
LAST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
LUST TRUST	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWTIRE	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
DENVER CO HIST FILL	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	TP		NR	NR	NR	NR	NR	0
UST FINDER	0.250		0	0	NR	NR	NR	0
UST FINDER RELEASE	0.500		0	0	0	NR	NR	0
E MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS	TP		NR	NR	NR	NR	NR	0
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0
ABAND AIRFIELDS	0.500		0	0	0	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
METHANE SITE	TP		NR	NR	NR	NR	NR	0
Methane Investig	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
LEAD	TP		NR	NR	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

MAP FINDINGS

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2026
Date Data Arrived at EDR: 04/01/2026
Date Made Active in Reports: 04/21/2026
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2026
Date Data Arrived at EDR: 04/01/2026
Date Made Active in Reports: 04/21/2026
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2026
Date Data Arrived at EDR: 04/01/2026
Date Made Active in Reports: 04/21/2026
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2025
Date Data Arrived at EDR: 12/10/2025
Date Made Active in Reports: 02/12/2026
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 03/24/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/26/2026
Date Data Arrived at EDR: 04/01/2026
Date Made Active in Reports: 04/21/2026
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 07/20/2026
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/26/2026
Date Data Arrived at EDR: 04/01/2026
Date Made Active in Reports: 04/21/2026
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 07/20/2026
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 11/30/2025
Date Data Arrived at EDR: 12/03/2025
Date Made Active in Reports: 12/10/2025
Number of Days to Update: 7

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 11/30/2025
Date Data Arrived at EDR: 12/03/2025
Date Made Active in Reports: 12/10/2025
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/30/2025
Date Data Arrived at EDR: 12/03/2025
Date Made Active in Reports: 12/10/2025
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 11/30/2025
Date Data Arrived at EDR: 12/03/2025
Date Made Active in Reports: 12/10/2025
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 11/30/2025
Date Data Arrived at EDR: 12/03/2025
Date Made Active in Reports: 12/10/2025
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 03/11/2025
Date Data Arrived at EDR: 04/02/2025
Date Made Active in Reports: 06/24/2025
Number of Days to Update: 83

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 04/29/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 10/30/2025
Date Data Arrived at EDR: 11/11/2025
Date Made Active in Reports: 11/12/2025
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/13/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 10/30/2025
Date Data Arrived at EDR: 11/11/2025
Date Made Active in Reports: 11/12/2025
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/13/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/11/2026
Date Data Arrived at EDR: 03/17/2026
Date Made Active in Reports: 05/14/2026
Number of Days to Update: 58

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: Department of Public Health & Environment
Telephone: 303-692-3300
Last EDR Contact: 05/05/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: N/A

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Solid Waste Sites & Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/01/2025
Date Data Arrived at EDR: 02/03/2026
Date Made Active in Reports: 04/22/2026
Number of Days to Update: 78

Source: Department of Public Health & Environment
Telephone: 303-692-3300
Last EDR Contact: 05/05/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: Varies

SHWF: Solid Waste Information System Listing

A listing from the Solid Waste Information System, which is used to help administer the various programs of our solid waste and materials management program. It includes a wide variety of types of facilities and sites, and includes information obtained over several decades and numerous legacy data systems.

Date of Government Version: 01/26/2026
Date Data Arrived at EDR: 01/27/2026
Date Made Active in Reports: 04/14/2026
Number of Days to Update: 77

Source: Department of Public Health & Environment
Telephone: 303-692-6349
Last EDR Contact: 04/28/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: Varies

Lists of state and tribal leaking storage tanks

LTANKS: Petroleum Release Events Listing

Active and Closed OPS Petroleum Release Events in Colorado. Includes the OPS Open Event locations, but also shows locations of closed events (releases that have been issued a No Further Action determination).

Date of Government Version: 05/01/2026
Date Data Arrived at EDR: 05/06/2026
Date Made Active in Reports: 05/08/2026
Number of Days to Update: 2

Source: Department of Labor & Employment
Telephone: 303-318-8525
Last EDR Contact: 05/06/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/07/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 27

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

LAST: Leaking Aboveground Storage Tank Listing

A listing of leaking aboveground storage tank sites. This list is no longer maintained. For current Leaking AST information, please see LTANKS.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/07/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 27

Source: Department of Labor & Employment
Telephone: 303-318-8525
Last EDR Contact: 05/31/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: No Update Planned

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/12/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 69

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

TRUST: Lust Trust Sites
Reimbursement application package. The 1989 Colorado General Assembly established Colorado's Petroleum Storage Tank Fund. The Fund reimburses eligible applicants for allowable costs incurred in cleaning up petroleum contamination from underground and aboveground petroleum storage tanks, as well as for third-party liability expenses. Remediation of contamination caused by railroad or aircraft fuel is not eligible for reimbursement. The Fund satisfies federal Environmental Protection Agency financial assurance requirements. Monies in the Fund come from various sources, predominantly the state environmental surcharge imposed on all petroleum products except railroad or aircraft fuel.

Date of Government Version: 12/04/2025
Date Data Arrived at EDR: 12/05/2025
Date Made Active in Reports: 02/25/2026
Number of Days to Update: 82

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 03/11/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Varies

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 06/06/2025
Date Data Arrived at EDR: 08/26/2025
Date Made Active in Reports: 11/12/2025
Number of Days to Update: 78

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 03/25/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/18/2026
Date Data Arrived at EDR: 02/19/2026
Date Made Active in Reports: 05/12/2026
Number of Days to Update: 82

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 05/20/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Quarterly

AST: Aboveground Tank List
Aboveground storage tank locations.

Date of Government Version: 02/18/2026
Date Data Arrived at EDR: 02/19/2026
Date Made Active in Reports: 05/12/2026
Number of Days to Update: 82

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: 303-318-8521
Last EDR Contact: 05/20/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Semi-Annually

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R2: Underground Storage Tanks on Indian Land
A listing of underground storage tanks located on Indian Land in Region 2

Date of Government Version: 04/06/2016
Date Data Arrived at EDR: 03/02/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 36
Source: Environmental Protection Agency,
Telephone: 212-637-3668
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/21/2025
Date Data Arrived at EDR: 12/11/2025
Date Made Active in Reports: 02/19/2026
Number of Days to Update: 70
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/13/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Environmental Real Covenants List
Senate Bill 01-145 gave authority to the Colorado Department of Public Health and Environment to approve requests to restrict the future use of a property using an enforceable agreement called an environmental covenant. When a contaminated site is not cleaned up completely, land use restrictions may be used to ensure that the selected cleanup remedy is adequately protective of human health and the environment.

Date of Government Version: 04/06/2026
Date Data Arrived at EDR: 04/08/2026
Date Made Active in Reports: 05/12/2026
Number of Days to Update: 34
Source: Department of Public Health & Environment
Telephone: 303-692-3331
Last EDR Contact: 04/08/2026
Next Scheduled EDR Contact: 08/03/2026
Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/03/2025
Next Scheduled EDR Contact: 03/30/2026
Data Release Frequency: Varies

VCP: Voluntary Cleanup & Redevelopment Act Application Tracking Report
The Voluntary Cleanup and Redevelopment Act is intended to permit and encourage voluntary cleanups by providing a method to determine clean-up responsibilities in planning the reuse of property. The VCRA was intended for sites which were not covered by existing regulatory programs.

Date of Government Version: 12/16/2025
Date Data Arrived at EDR: 12/17/2025
Date Made Active in Reports: 12/22/2025
Number of Days to Update: 5

Source: Department of Public Health and Environmental
Telephone: 303-692-3331
Last EDR Contact: 03/31/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Semi-Annually

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields Sites Listing
Brownfields Sites Listing

Date of Government Version: 01/12/2026
Date Data Arrived at EDR: 01/13/2026
Date Made Active in Reports: 04/02/2026
Number of Days to Update: 79

Source: Department of Public Health & Environment
Telephone: 303-692-3331
Last EDR Contact: 04/14/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/09/2026
Date Data Arrived at EDR: 03/10/2026
Date Made Active in Reports: 05/04/2026
Number of Days to Update: 55

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/10/2026
Next Scheduled EDR Contact: 06/22/2026
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWTIRE: Waste Tire Registrants & Haulers Listing
A statewide listing of waste tire registrants and waste tire haulers.

Date of Government Version: 02/17/2026
Date Data Arrived at EDR: 02/17/2026
Date Made Active in Reports: 05/13/2026
Number of Days to Update: 85

Source: Department of Health & Environment
Telephone: 303-692-3347
Last EDR Contact: 05/19/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Quarterly

HISTORICAL LANDFILL: Historical Landfill List
Abandoned/Inactive Landfills.

Date of Government Version: 01/31/1993
Date Data Arrived at EDR: 04/24/1994
Date Made Active in Reports: 05/30/1994
Number of Days to Update: 36

Source: Department of Public Health & Environment
Telephone: 303-692-3300
Last EDR Contact: 09/05/1996
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Registered Recyclers Listing
A listing of registered recycler locations in the state of Colorado.

Date of Government Version: 12/29/2025
Date Data Arrived at EDR: 02/10/2026
Date Made Active in Reports: 03/20/2026
Number of Days to Update: 38

Source: Department of Public Health & Environment
Telephone: 303-692-3337
Last EDR Contact: 02/05/2026
Next Scheduled EDR Contact: 06/15/2026
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/15/2026
Next Scheduled EDR Contact: 08/03/2026
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/08/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/15/2026
Next Scheduled EDR Contact: 08/03/2026
Data Release Frequency: Varies

DENVER CO HIST FILL: Denver City & County Historic Fill Areas
This dataset denotes the approximate locations of historical fill areas within the City and County of Denver (CCoD) and with within approximately three-quarters of a mile of the CCoD boundaries. The data is of a general nature and obtained from historic and current documents that may not be accurate or precise.

Date of Government Version: 05/22/2024
Date Data Arrived at EDR: 07/02/2024
Date Made Active in Reports: 09/24/2024
Number of Days to Update: 84
Source: City & County of Denver
Telephone: 720-913-5237
Last EDR Contact: 04/02/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 04/04/2025
Date Data Arrived at EDR: 06/02/2025
Date Made Active in Reports: 08/12/2025
Number of Days to Update: 71
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/21/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: No Update Planned

CDL: Meth Lab Locations
Meth lab locations that were reported to the Department of Public Health & Environment.

Date of Government Version: 12/08/2025
Date Data Arrived at EDR: 12/12/2025
Date Made Active in Reports: 12/22/2025
Number of Days to Update: 10
Source: Department of Public Health and Environment
Telephone: 303-692-3023
Last EDR Contact: 03/18/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 04/04/2025
Date Data Arrived at EDR: 06/02/2025
Date Made Active in Reports: 08/12/2025
Number of Days to Update: 71
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/21/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/26/2026
Date Data Arrived at EDR: 04/01/2026
Date Made Active in Reports: 04/21/2026
Number of Days to Update: 20
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/07/2025
Date Data Arrived at EDR: 12/08/2025
Date Made Active in Reports: 02/12/2026
Number of Days to Update: 66

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

CO ERNS: Spills Database
State reported spills.

Date of Government Version: 12/08/2025
Date Data Arrived at EDR: 12/12/2025
Date Made Active in Reports: 12/22/2025
Number of Days to Update: 10

Source: Department of Public Health and Environmental
Telephone: 303-692-2000
Last EDR Contact: 03/18/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Quarterly

SPILLS 2: Spills
A listing of spills reported to the Oil & Gas Conservation Commission

Date of Government Version: 12/01/2025
Date Data Arrived at EDR: 12/08/2025
Date Made Active in Reports: 02/26/2026
Number of Days to Update: 80

Source: Oil & Gas Conservation Commission
Telephone: 303-894-2100
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch
Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/15/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/06/2013
Number of Days to Update: 34

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 11/30/2025
Date Data Arrived at EDR: 12/03/2025
Date Made Active in Reports: 12/10/2025
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 303-312-6149
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 02/05/2026
Date Data Arrived at EDR: 02/10/2026
Date Made Active in Reports: 04/27/2026
Number of Days to Update: 76

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/12/2026
Next Scheduled EDR Contact: 08/24/2026
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/09/2026
Next Scheduled EDR Contact: 07/20/2026
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 03/31/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 04/29/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/07/2025
Date Data Arrived at EDR: 12/08/2025
Date Made Active in Reports: 02/05/2026
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 04/30/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 04/30/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 04/22/2026
Next Scheduled EDR Contact: 06/22/2026
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2024
Date Data Arrived at EDR: 02/12/2026
Date Made Active in Reports: 05/04/2026
Number of Days to Update: 81

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/14/2026
Next Scheduled EDR Contact: 08/24/2026
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/12/2026
Date Data Arrived at EDR: 01/13/2026
Date Made Active in Reports: 03/05/2026
Number of Days to Update: 51

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/14/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/24/2026
Date Data Arrived at EDR: 05/01/2026
Date Made Active in Reports: 05/14/2026
Number of Days to Update: 13

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 06/08/2026
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/01/2026
Date Data Arrived at EDR: 01/14/2026
Date Made Active in Reports: 01/22/2026
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/08/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 06/26/2025
Date Data Arrived at EDR: 07/01/2025
Date Made Active in Reports: 07/29/2025
Number of Days to Update: 28

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 08/12/2025
Date Data Arrived at EDR: 09/30/2025
Date Made Active in Reports: 11/24/2025
Number of Days to Update: 55

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 03/04/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 09/23/2025
Next Scheduled EDR Contact: 01/12/2026
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/26/2026
Date Data Arrived at EDR: 01/27/2026
Date Made Active in Reports: 02/25/2026
Number of Days to Update: 29

Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 04/08/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2024
Date Data Arrived at EDR: 11/19/2025
Date Made Active in Reports: 01/29/2026
Number of Days to Update: 71

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/21/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/21/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/30/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 03/18/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/31/2025
Date Data Arrived at EDR: 01/20/2026
Date Made Active in Reports: 03/05/2026
Number of Days to Update: 44

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/21/2026
Next Scheduled EDR Contact: 08/03/2026
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2025
Date Data Arrived at EDR: 03/12/2026
Date Made Active in Reports: 05/14/2026
Number of Days to Update: 63

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/08/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 02/19/2025
Date Made Active in Reports: 03/07/2025
Number of Days to Update: 16

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 03/31/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/30/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/15/2025
Date Data Arrived at EDR: 05/15/2025
Date Made Active in Reports: 07/29/2025
Number of Days to Update: 75

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/11/2026
Next Scheduled EDR Contact: 08/24/2026
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/26/2026
Date Data Arrived at EDR: 04/01/2026
Date Made Active in Reports: 04/21/2026
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 05/01/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 04/03/2026
Date Data Arrived at EDR: 04/28/2026
Date Made Active in Reports: 05/04/2026
Number of Days to Update: 6

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 04/28/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 01/01/2026
Date Data Arrived at EDR: 01/06/2026
Date Made Active in Reports: 01/07/2026
Number of Days to Update: 1

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 04/08/2025
Date Data Arrived at EDR: 05/20/2025
Date Made Active in Reports: 08/12/2025
Number of Days to Update: 84

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/18/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/18/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/11/2026
Date Data Arrived at EDR: 03/12/2026
Date Made Active in Reports: 05/04/2026
Number of Days to Update: 53

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 05/27/2026
Next Scheduled EDR Contact: 09/14/2026
Data Release Frequency: Quarterly

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 06/04/2024
Date Data Arrived at EDR: 11/22/2024
Date Made Active in Reports: 02/18/2025
Number of Days to Update: 88

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/18/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/11/2026
Date Data Arrived at EDR: 02/20/2026
Date Made Active in Reports: 05/14/2026
Number of Days to Update: 83

Source: EPA
Telephone: (303) 312-6312
Last EDR Contact: 05/22/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/13/2025
Date Data Arrived at EDR: 12/17/2025
Date Made Active in Reports: 02/25/2026
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/31/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 07/31/2025
Date Data Arrived at EDR: 02/11/2026
Date Made Active in Reports: 04/27/2026
Number of Days to Update: 75

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/20/2026
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/13/2026
Next Scheduled EDR Contact: 08/31/2026
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/09/2026
Date Data Arrived at EDR: 02/10/2026
Date Made Active in Reports: 04/27/2026
Number of Days to Update: 76

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/12/2026
Next Scheduled EDR Contact: 05/25/2026
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 03/31/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 11/12/2024
Date Data Arrived at EDR: 07/21/2025
Date Made Active in Reports: 10/13/2025
Number of Days to Update: 84

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 04/23/2026
Next Scheduled EDR Contact: 08/03/2026
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 01/07/2026
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/19/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 08/21/2025
Date Data Arrived at EDR: 12/04/2025
Date Made Active in Reports: 02/12/2026
Number of Days to Update: 70

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 03/05/2026
Next Scheduled EDR Contact: 06/15/2026
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 12/23/2025
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 12/17/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 03/05/2026
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/24/2025
Next Scheduled EDR Contact: 01/12/2026
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/24/2025
Next Scheduled EDR Contact: 01/12/2026
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data
The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 01/10/2026
Date Data Arrived at EDR: 01/15/2026
Date Made Active in Reports: 03/05/2026
Number of Days to Update: 49

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 04/14/2026
Next Scheduled EDR Contact: 07/27/2026
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database
US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 05/07/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: Semi-Annually

UST FINDER: UST Finder Database
EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 05/07/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: Varies

E MANIFEST: Hazardous Waste Electronic Manifest System
EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 11/30/2025
Date Data Arrived at EDR: 12/05/2025
Date Made Active in Reports: 12/19/2025
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 03/17/2026
Next Scheduled EDR Contact: 06/29/2026
Data Release Frequency: Varies

PFAS: PFAS Information Listing
A list of entities that have tested groundwater and have found PFAS chemicals, specifically PFOA and PFOS, levels above the health advisory. Potential sources of these chemicals include military bases, fire stations or training centers, landfills, industrial sites, car racetracks, and ski resorts.

Date of Government Version: 06/11/2025
Date Data Arrived at EDR: 06/30/2025
Date Made Active in Reports: 07/29/2025
Number of Days to Update: 29

Source: Department of Public Health & Environment
Telephone: 303-692-3605
Last EDR Contact: 04/02/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

AQUEOUS FOAM: Class B Firefighting Foam Contaminating PFAS Listing

Class B foams put out fires caused by flammable liquids like gasoline, oil, and jet fuel. They may contain PFAS chemicals. Anyone using or storing Class B firefighting foam containing these chemicals must register through the Certificate of Registration Program.303-692-38

Date of Government Version: 12/16/2025
Date Data Arrived at EDR: 12/17/2025
Date Made Active in Reports: 03/04/2026
Number of Days to Update: 77

Source: Department of Public Health & Environment
Telephone: 303-692-3605
Last EDR Contact: 03/31/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

ABAND AIRFIELDS: Abandoned & Little-Known Airfields Listing

Abandoned and little known airfield locations, in the United States.

Date of Government Version: 03/04/2026
Date Data Arrived at EDR: 03/05/2026
Date Made Active in Reports: 03/12/2026
Number of Days to Update: 7

Source: Airfields-Freeman
Telephone: N/A
Last EDR Contact: 03/05/2026
Next Scheduled EDR Contact: 06/15/2026
Data Release Frequency: Varies

AIRS: Permitted Facility & Emissions Listing

A listing of Air Pollution Control Division permits and emissions data.

Date of Government Version: 02/18/2026
Date Data Arrived at EDR: 02/19/2026
Date Made Active in Reports: 05/12/2026
Number of Days to Update: 82

Source: Department of Public Health & Environment
Telephone: 303-692-3213
Last EDR Contact: 05/20/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Varies

ASBESTOS: Asbestos Abatement & Demolition Projects

Asbestos abatement and demolition projects by the contractor.

Date of Government Version: 04/23/2025
Date Data Arrived at EDR: 04/24/2025
Date Made Active in Reports: 07/14/2025
Number of Days to Update: 81

Source: Department of Public Health & Environment
Telephone: 303-692-3100
Last EDR Contact: 05/06/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: Semi-Annually

METHANE SITE: Methane Site Investigations - Jefferson County 1980

The objectives of the study are to define as closely as possible the boundaries of methane producing solid waste landfills.

Date of Government Version: 12/31/1980
Date Data Arrived at EDR: 02/13/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 50

Source: Jefferson County Health Department
Telephone: 303-239-7175
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

METHANE INVESTIG: Methane Gas & Swamp Findings

The primary objective of this study was to assess methane gas related hazards at selected landfill sites in Colorado. These sites were selected by the Colorado Department of Health following evaluation of responses received from County and Municipal agencies about completed and existing landfills within their jurisdiction.

Date of Government Version: 03/15/1979
Date Data Arrived at EDR: 02/13/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 50

Source: Department of Health
Telephone: 303-640-3335
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DRYCLEANERS: Drycleaner Facilities
A listing of drycleaning facilities.

Date of Government Version: 02/26/2026
Date Data Arrived at EDR: 02/26/2026
Date Made Active in Reports: 05/12/2026
Number of Days to Update: 75

Source: Department of Public Health & Environment
Telephone: 303-692-3213
Last EDR Contact: 05/20/2026
Next Scheduled EDR Contact: 09/07/2026
Data Release Frequency: Varies

FIN ASSURANCE 1: Financial Assurance Information Listing
A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 12/11/2025
Date Data Arrived at EDR: 12/12/2025
Date Made Active in Reports: 03/04/2026
Number of Days to Update: 82

Source: Department of Public Health & Environment
Telephone: 303-692-3350
Last EDR Contact: 03/18/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Varies

FIN ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 12/16/2025
Date Data Arrived at EDR: 12/18/2025
Date Made Active in Reports: 01/13/2026
Number of Days to Update: 26

Source: Department of Public Health & Environment
Telephone: 303-392-3350
Last EDR Contact: 03/18/2026
Next Scheduled EDR Contact: 07/06/2026
Data Release Frequency: Quarterly

LEAD: Lead Abatement Permit Listing
Lead inspection

Date of Government Version: 04/23/2025
Date Data Arrived at EDR: 04/24/2025
Date Made Active in Reports: 07/14/2025
Number of Days to Update: 81

Source: Department of Publich Health & Environment
Telephone: 303-692-2000
Last EDR Contact: 05/06/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: Varies

MINES: Permitted Mines Listing
This dataset represents permitted mines in the State of Colorado

Date of Government Version: 01/03/2026
Date Data Arrived at EDR: 01/06/2026
Date Made Active in Reports: 03/13/2026
Number of Days to Update: 66

Source: Division of Reclamation Mining and safety
Telephone: 303-866-3567
Last EDR Contact: 04/07/2026
Next Scheduled EDR Contact: 07/20/2026
Data Release Frequency: Semi-Annually

NPDES: Permitted Facility Listing
A listing of permitted facilities from the Water Quality Control Division.

Date of Government Version: 12/09/2025
Date Data Arrived at EDR: 01/16/2026
Date Made Active in Reports: 04/06/2026
Number of Days to Update: 80

Source: Department of Public Health & Environment
Telephone: 303-692-3611
Last EDR Contact: 04/21/2026
Next Scheduled EDR Contact: 08/03/2026
Data Release Frequency: Varies

UIC: Underground Injection Control
A list of underground injection wells and their locations.

Date of Government Version: 04/22/2026
Date Data Arrived at EDR: 04/22/2026
Date Made Active in Reports: 04/27/2026
Number of Days to Update: 5
Source: Oil & Gas Conservation Commission
Telephone: 303-894-2100
Last EDR Contact: 04/22/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites
There were nine uranium mill tailings sites in Colorado designated for cleanup under the federal Uranium Mill Tailings Radiation Control Act. These nine sites, know commonly as UMTRA sites, were remediated jointly by the State of Colorado and the U.S. Department of Energy during the late 1980's and early 1990's. Mill tailings were removed from 8 of the mill sites and relocated in engineered disposal cells. A disposal cell is designed to encapsulate the material, reduce radon emanation, and prevent the movement of water through the material. At one site, Maybell, CO, the tailings were stabilized in-place at the mill site. After remediation of the tailings was completed, the State and DOE began to investigate the residual impacts to groundwater at the mill sites. The groundwater phase of the UMTRA program is on-going.

Date of Government Version: 05/20/2025
Date Data Arrived at EDR: 08/15/2025
Date Made Active in Reports: 11/03/2025
Number of Days to Update: 80
Source: Department of Public Health & Environment
Telephone: 970-248-7164
Last EDR Contact: 05/14/2026
Next Scheduled EDR Contact: 08/24/2026
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner Facility Listing
A listing of list of ALL Dry cleaner facilities from the Integrated Compliance Information System (ICIS).

Date of Government Version: 12/13/2025
Date Data Arrived at EDR: 12/17/2025
Date Made Active in Reports: 03/12/2026
Number of Days to Update: 85
Source: Environmental Protection Agency
Telephone: 202-254-2501
Last EDR Contact: 03/31/2026
Next Scheduled EDR Contact: 07/13/2026
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A
Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Public Health & Environment in Colorado.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/15/2014
Number of Days to Update: 198

Source: Department of Public Health & Environment
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Labor and Employment, Oil Inspection Section in Colorado.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 185

Source: Department of Labor and Employment, Oil Inspection Section
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ADAMS COUNTY:

LF ADAMS: Summary Report on Methane Gas Hazards and Surveys Conducted on Domestic and Demolition Landfills in Adams County

As of May 8, 1978, all known landfills or dumping sites in the Adams County area have been surveyed.

Date of Government Version: 05/08/1978
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

ARAPAHOE COUNTY:

LF ARAPAHOE: A Survey of Landfills in Arapahoe County

A survey of Arapahoe County was conducted from August through November, 1977, of all open and closed landfills and dumpsites in the county. Each of the sites found was classified as domestic or demolition.

Date of Government Version: 12/31/1978
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

BOULDER COUNTY:

LF BOULDER: Old Landfill Sites

Landfill sites in Boulder county.

Date of Government Version: 05/01/1986
Date Data Arrived at EDR: 11/14/1995
Date Made Active in Reports: 12/07/1995
Number of Days to Update: 23

Source: Boulder County Health Department
Telephone: 303-441-1182
Last EDR Contact: 01/30/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DENVER COUNTY:

LF DENVER: Landfills in Denver County

Landfill sites in the city and county of Denver.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 06/23/2017
Date Made Active in Reports: 09/06/2017
Number of Days to Update: 75

Source: City and County of Denver
Telephone: 720-913-4839
Last EDR Contact: 03/12/2026
Next Scheduled EDR Contact: 06/22/2026
Data Release Frequency: No Update Planned

LF DENVER CO METHANE: Investigation of Methane Gas Hazards

The purpose of this study was to assess the actual and potential generation, migration, explosive and related problem associated with specified old landfills, and to identify existing and potential problems, suggested strategies to prevent, abate, and control such problems and recommend investigative and monitoring functions as may be deemed necessary. Eight sites determined to be priorities due to population density and potential hazards to population and property were selected by the Colorado Department of Health.

Date of Government Version: 01/01/1981
Date Data Arrived at EDR: 01/29/2013
Date Made Active in Reports: 03/08/2013
Number of Days to Update: 38

Source: City and County of Denver Department of Environmental Health
Telephone: 720-865-5522
Last EDR Contact: 01/15/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DOUGLAS COUNTY:

LF DOUGLAS: Douglas County Landfill Key

Landfill sites in Douglas county.

Date of Government Version: 06/12/1991
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

PUEBLO COUNTY:

LF PUEBLO: Designated Disposal & Landfill Sites
Only inert materials. Asphalt, cement, dirt & rock unless otherwise specified. These sites are no longer active.

Date of Government Version: 04/30/1990
Date Data Arrived at EDR: 11/16/1995
Date Made Active in Reports: 12/07/1995
Number of Days to Update: 21

Source: Pueblo City-County Health Department
Telephone: 719-583-4300
Last EDR Contact: 11/13/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

TRI COUNTY:

LF TRI: Tri-County Area Solid Waste Facilities List (Adams, Arapahoe and Douglas Counties)
Closed Domestic Landfills in Adams County, Closed Domestic Landfills in Arapahoe County, Closed Demolition Landfills in Arapahoe County, Closed Domestic Landfills in Douglas County.

Date of Government Version: 10/15/1983
Date Data Arrived at EDR: 02/16/1995
Date Made Active in Reports: 04/04/1995
Number of Days to Update: 47

Source: Tri-County Health Department
Telephone: 303-761-1340
Last EDR Contact: 01/27/1995
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WELD COUNTY:

LF WELD: Solid Waste Facilities in Weld County
Solid Waste Facilities in Weld County.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 02/23/2018
Number of Days to Update: 14

Source: Weld County Department of Public Health
Telephone: 970-304-6415
Last EDR Contact: 04/27/2026
Next Scheduled EDR Contact: 08/10/2026
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/01/2026
Date Data Arrived at EDR: 02/03/2026
Date Made Active in Reports: 04/27/2026
Number of Days to Update: 83

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/05/2026
Next Scheduled EDR Contact: 08/17/2026
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/21/2026
Next Scheduled EDR Contact: 08/03/2026
Data Release Frequency: No Update Planned

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/01/2026
Next Scheduled EDR Contact: 07/20/2026
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 02/25/2026
Next Scheduled EDR Contact: 06/15/2026
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Daycare Centers: Daycare Listing
Source: Department of Human Services
Telephone: 303-866-5958

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

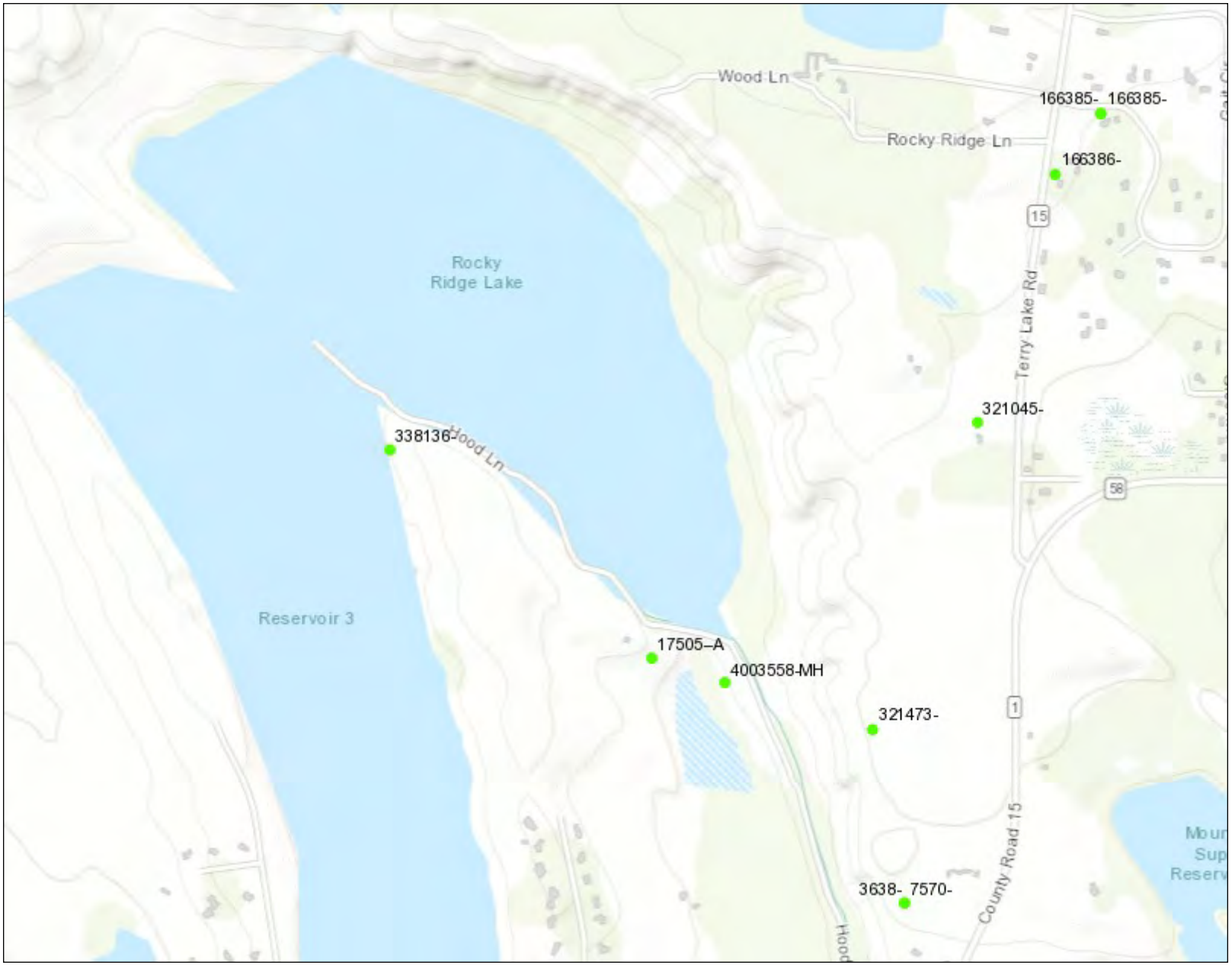
State Wetlands Data: Riparian Vegetation Data
Source: Division of Wildlife
Telephone: 970-416-3360

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

COLORADO'S
Decision Support Systems
CWCB / DWR

CDWR Map Viewer



Legend

- Well Constructed
- County

Location

Notes

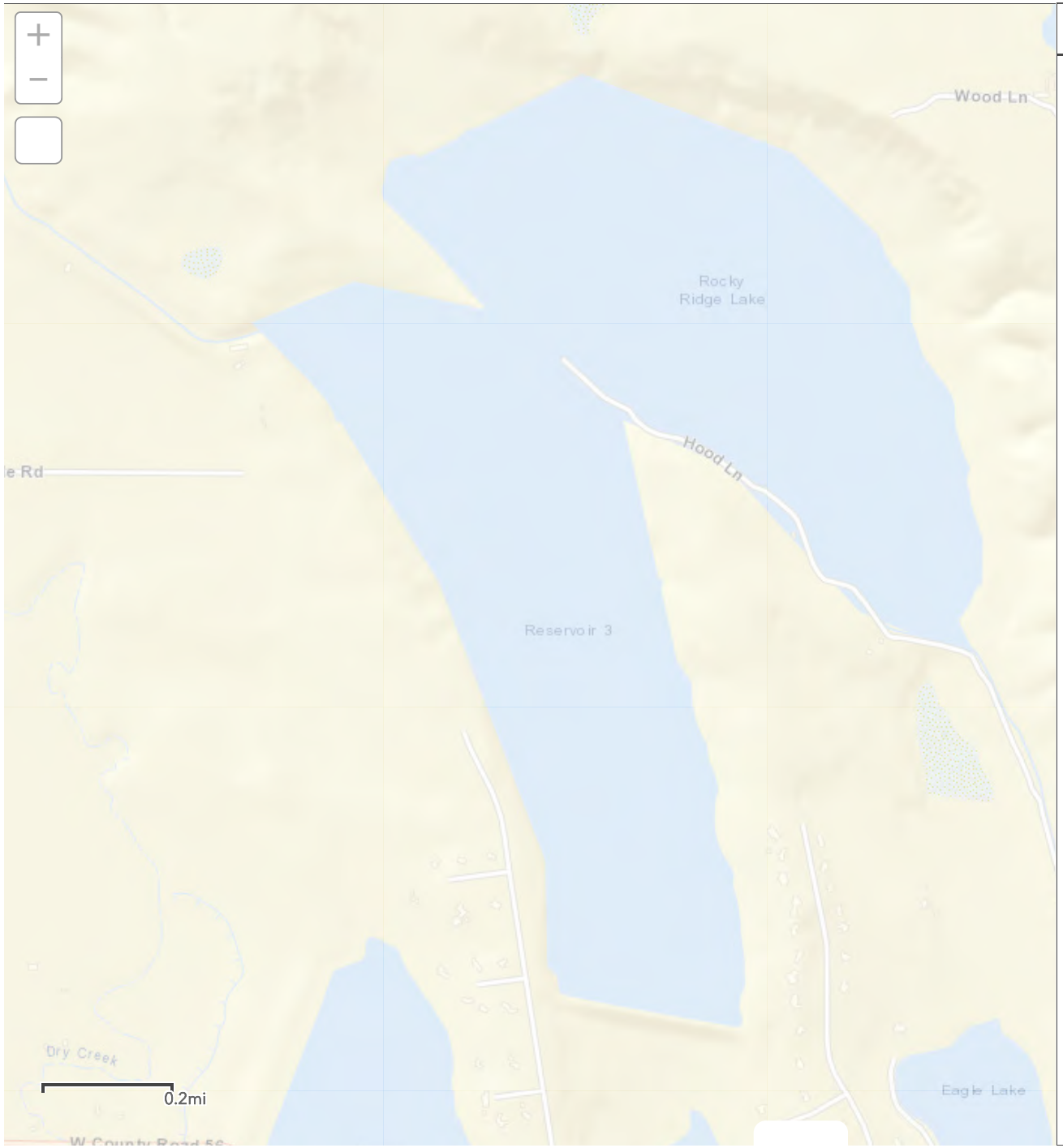
2,339 0 1,169 2,339 Feet

1: 14,032

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Date Prepared: 5/29/2026 10:09:06 AM

Open map in new window -Accessibility -How-To Guide



Legend

Layers

Institutional controls

Voluntary Cleanup and Redevelopment Program (VCUP)

RCRA corrective action

RCRA active handler

Generator_Status

Large Quantity Generator

Small Quantity Generator

Very Small Quantity Generator

Not A Generator

Federal facilities

Superfund / National Priorities List (NPL NRD)

Brownfields

Solid waste facilities

Category

CECM Mapping

Appendix C Qualifications of Environmental Professionals

Jack Denman, P.G.

Senior Geologist

ERO Resources Corporation

KEY STRENGTHS

- Project Management
- Environmental Site Assessments
- Site Characterization/Remediation
- NEPA Compliance

EDUCATION

1996 | B.A. Environmental Geology, magna cum laude | Colorado College

CERTIFICATIONS

Professional Geologist: WY #PG-3541, ID #PG 1113

OSHA 1910.120(e) 40-hour Hazardous Waste Operations and Emergency Response, with Annual 8-Hour Refreshers.

Years with ERO: 25 | Years' Experience: 26

Since 1998, Jack has conducted geologic and environmental investigations, including Phase I and II Environmental Site Assessments (ESA); site characterization and monitoring; surface and subsurface soil and ground water investigations; contamination excavation; and remediation system design, installation, and operation as well as waste management consultation.

City of Thornton | Thornton, Colorado
Project Manager — Senior scientist and project manager for General Environmental Services contract with Thornton. Projects include the Thornton Shopping Center PCE release, Eppinger Community Center Demolition, Phase I and Phase II ESAs, petroleum storage tank closures, oversight of third-party assessments and cleanups, emergency response coordination, facility decommissioning, and coordinating asbestos abatement.

Mission Ballroom/Midtown Redevelopment | Denver, Colorado
Project Manager — Project manager and senior scientist for Phase I, Phase II, and Voluntary Cleanup of former light industrial warehouse redevelopment. Services included site evaluation, facility decommissioning, asbestos abatement coordination, demolition and excavation oversight, documentation and regulatory interaction.

Denver Merchandise Mart Redevelopment, Denver | CO
Project Manager — Project manager and senior scientist for Phase I, Phase II, and Voluntary Cleanup of former commercial property with prior industrial land use. Project included site inventory of historical industrial land uses, soil/vapor/groundwater characterization, demolition oversight, asbestos abatement coordination, and process documentation.

Central Park Denver Redevelopment | Denver, Colorado
Project Manager — Project and field manager for multiple due diligence investigations across the former Denver Stapleton International Airport facility. Activities have included extensive historical documentation review and subsurface soil, ground water, and soil vapor testing and evaluation.

Dry Cleaning Facilities | Metropolitan Denver, Colorado
Project Manager — Project manager for multiple sites within the Denver metropolitan area with contaminated soil and ground water associated with current or former dry cleaning operations. Activities include soil, groundwater, soil vapor, indoor air assessment; remedial action design and implementation; and client and regulatory interaction.

Methane Evaluation | City and County of Broomfield, Colorado
Project Manager — Project manager for City-wide evaluation for leaking plugged and abandoned oil and gas wells to investigate potential for soil gas methane releases. Tasks included property access, standard operating procedure development, vapor point installation and monitoring, isotopic analysis interpretation, and public presentation of results.

Environmental Site Assessments | National Park Service, Various Locales
Project Manager — Conducted multiple Phase I and Phase II ESAs within NPS units in Hawaii, Idaho, Washington, and Colorado. Projects involved remote location mapping, sample plan design and implementation, exposure pathway evaluation and reporting in accordance with CERCLA and NPS requirements.

Appendix D Environmental Records Review Work Scope

Task 6. Environmental Records Review and Materials Management Plan

File search and regulatory agency review. ERO will conduct a search of records and files from a variety of sources and compile existing information pertaining to current and past environmental conditions that may affect construction of the project. This search may include the following information, as ERO deems appropriate:

- Topographic, land use, and environmental resource maps.
- Aerial photographs.
- County and city records.
- Federal, state, and local databases.

Reports and recommendations. Based on the information gathered during the above tasks, ERO will prepare a written report for the project area. The report will contain a detailed presentation of findings including the site description, records review, and conclusions.

Materials Management Plan. Based on the information gathered during the above tasks, ERO will prepare Materials Management Plan (MMP) specific to Segment F. The MMP will outline the likely or potential areas of encountered contaminated soils and/or groundwater and describe methods for management of non-native or non-standard media encountered during construction.

Products

- Draft and Final Environmental Records Review (ERR) Report delivered to the City via email.
- Draft and Final Materials and Management Plan delivered to the City via email.

Assumptions and Conditions

It is important to emphasize that considerable uncertainty is inherent in conducting this type of investigation. The ERR will be completed by a qualified environmental professional using the degree of care and skill ordinarily exercised under similar circumstances by other professionals practicing in this field. Unforeseen conditions may significantly affect the ability to make conclusions and recommendations based solely on the proposed investigations and may ultimately affect the level of risk for a given level of investigative effort and cost. The following assumptions and conditions describe some of the possible limitations under this SOW:

1. All work will be conducted according to the provisions given in this SOW and in the accompanying Terms and Conditions. No other specifications or guidelines have been agreed to, nor will any such specifications or guidelines be addressed except as will otherwise be according to this SOW.
2. Any conditions, known or suspected to the City, that may have bearing on these investigations, or to the findings or recommendations made pursuant to this SOW, will be disclosed to ERO before initiation of the SOW. The City will make available to ERO any appraisal reports, title histories, engineering reports, or other technical reports or information that may pertain to this investigation.
3. All references, statements, or recommendations in this SOW or in any subsequent written reports to substances being either hazardous or not hazardous are made solely in accordance with or in reference to such official designations made by government agencies or other authorities under applicable laws, regulations, or guidelines. ERO itself makes no claim, warranty, or implication as to whether any substance may or may not be hazardous.
4. This SOW does not include an assessment of the potential for any particular condition to adversely affect public health.
5. Deviations from these assumptions may result in cost increases or changes in schedule.
6. All site boundaries shown or discussed in the ERR are approximations based on information supplied by the City. ERO will accept no responsibility or liability for the accuracy of the site boundaries.
7. The City will be responsible for determining the project area size and boundary and forwarding these items to ERO at least 5 days before the date of project completion.

Schedule

ERO will complete Task 6 within six weeks of notice to proceed and limits of construction have been identified.