



Source Water Assessment

A Hydrogeologic Susceptibility and
Vulnerability Assessment for
River Terrace RV Park and Trailer Court
Drinking Water System,
Kenai area, Alaska
PWSID 241012.001 and 241012.002

April 2004

DRINKING WATER PROTECTION PROGRAM REPORT 1497 Alaska Department of Environmental Conservation

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The Drinking Water Protection Program (DWPP) is producing Source Water Assessments in compliance with the Safe Drinking Water Act Amendments of 1996. Each assessment includes a delineation of the source water area, an inventory of potential and existing contaminant sources that may impact the water, a risk ranking for each of these contaminants, and an evaluation of the potential vulnerability of these drinking water sources.

These assessments are intended to provide public water systems owners/operators, communities, and local governments with the best available information that may be used to protect the quality of their drinking water. The assessments combine information obtained from various sources, including the U.S. Environmental Protection Agency, Alaska Department of Environmental Conservation (ADEC), public water system owners/operators, and other public information sources. The results of this assessment are subject to change if additional data becomes available. It is anticipated this assessment will be updated every five years to reflect any changes in the vulnerability and/or susceptibility of public drinking water source. If you have any additional information that may affect the results of this assessment, please contact the Program Coordinator of DWPP, (907) 269-7521.

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Source Water Assessment for River Terrace RV Park and Trailer Court Source of Public Drinking Water, Soldotna area, Alaska

Drinking Water Protection Program Alaska Department of Environmental Conservation

EXECUTIVE SUMMARY

The public water system for River Terrace RV Park and Trailer Court is a Class A (Community) water system currently consisting of two wells. The wells are located approximately 1/2 mile northeast of the intersection of Kalifornsky Beach Road and the Sterling Highway. The wellheads received a susceptibility rating of Medium and the aquifer received a susceptibility rating of Low. Combining these two ratings produces a Low rating for the natural susceptibility of the well. Identified potential and current sources of contaminants for the River Terrace RV Park and Trailer Court include: dry cleaners, motor vehicle supplies store, taxidermists, large capacity septic systems, sewer lines, roads, industrial process waste water disposal wells, recognized contaminated sites, residential septic systems, residential area, campgrounds, bowling centers, construction trade materials florists, heavy equipment rental storage, motor vehicle dealerships, motor vehicle repair shops, print shops, motor vehicle water disposal wells, sign manufacturing, Leaking Underground Storage Sites (LUST's), medical facilities. These identified potential and existing sources of contamination are considered as sources of bacteria and viruses, nitrates and/or nitrites, and volatile organic chemicals, inorganic chemicals, synthetic organic chemicals and other organic chemicals. Overall, the River Terrace RV Park and Trailer Court received a vulnerability rating of **High** for inorganic chemicals, Medium for bacteria/ viruses, nitrates/nitrites, volatile organic chemicals, inorganic chemicals and other organic chemicals and Low for synthetic organic chemicals

RIVER TERRACE- PUBLIC DRINKING WATER SYSTEM

The River Terrace public water system (PWS) is a Class A (Community) water system. The system currently consists of two wells. This report assesses both wells. The wells are located approximately ½ mile northeast of the intersection of Kalifornsky Beach Road and the Sterling Highway (See Map 1 of Appendix A).

The River Terrace RV Park and Trailer Court is located in the Kenai Peninsula Borough, which is located directly south of the city of Anchorage (Please see the inset of Map 1 in Appendix A for location). The borough encompasses 25,600 square miles, of which only 15,700 square miles is land.

The Kenai Peninsula is broken into two distinct geographic areas; the Kenai Mountains and the Kenai Lowlands. Kenai and its surrounding communities are located in the Kenai Lowlands. Communities located within the Kenai Lowlands include Sterling, Soldotna, Kenai, Kenai, Clam Gulch, Ninilchik, and Homer.

The Kenai Peninsula area topography varies from about 3,000 feet to 5,000 feet above sea level in the Kenai Mountains, the highest point being about 6,400 feet above sea level. The Kenai Peninsula is dotted with many lakes and small streams, including three large lakes (Kenai Lake, Skilak Lake, and Tustemena Lake) and two substantial rivers (Kenai River, and Kasilof River) (USGS 1915).

The River Terrace RV Park and Trailer Court water system is located within the Kenai Lowlands, which is a sub-province of the Cook Inlet-Susitna Lowland physiographic region. The Kenai Lowland is a glaciated coastal shelf situated west of the northeast-trending Kenai Mountains. Approximately 100 miles long, the coastal shelf is bordered on the west by Cook Inlet, on the east by Kenai Mountains, on the north by Turnagain Arm, and on the south by the Caribou Hills and Kachemak Bay. The following summary of regional geology and hydrogeology is based on studies by Bailey and Hogan (1995); Freethey and Scully (1980); Glass (1996); Hartman, et al. (1972); and Karlstrom (1964).

The Kenai Lowland is underlain by bedrock. Tertiary sedimentary bedrock is more than 500 feet below the city of Kenai airport, but is exposed along beach cliffs and road cuts near the southwest end of the lowland. Unconsolidated surficial deposits of Quaternary age include coastal deposits, glaciolacustrine deposits, glaciofluvial deposits, glacial moraine deposits, and periglacial wind deposits. Unconsolidated Quaternary cover on the lowlands generally thickens from south to North being thin or absent in the Homer area, and over 750 feet thick near Kenai.

The most significant groundwater resources of the Kenai Lowlands are contained in Quarternary coarsegrained sands and gravels. Flood plain, river terrace and other alluvial deposits are common aquifer materials in the area, and are characterized by high rates of recharge, and large saturated thicknesses. Other favorable materials include proglacial lake and associated river deposits and glacial outwash deposits consisting of meltwater sorted sand and gravel material. Unsorted glacial moraine and drift deposits generally have poor groundwater yields, as do discontinuous layers of confining clays and silt that are common throughout the unconsolidated materials. The relatively thicker sequence of unconsolidated sediments in the northern portions of the Kenai Lowlands locally hosts thicker, more extensive clay aquitards and multiple aquifers.

The Kenai Peninsula area has numerous central water systems; however, many homes and businesses in the area rely on individual wells for their water supply. Most of these wells are deep with depths between 50 and 200 feet. Static water levels in many of these wells are between 10 and 30 feet below the surface. Although groundwater quality can vary significantly in short distance, groundwater supplies are abundant in the area.

The Sanitary Survey (2001) indicates that the wellheads are buried. The presence of a sanitary seals could not be confirmed due to the wellheads being buried underground. A properly installed sanitary seal may provide protection against contaminant from entering the source waters at the casing. The well is not located in a floodplain. Since the wells were drilled prior to grouting regulations, it is assumed that the wells are not grouted. Proper grouting provides added protection against contaminants traveling along the well casing and into source waters.

This system operates year round and serves up to 52 residents and 300 non-residents through 53 service connections.

RIVER TERRACE RV PARK AND TRAILER COURT DRINKING WATER PROTECTION AREA

In order to evaluate whether a drinking water source is at risk, we must first evaluate what are the most likely pathways for surface contamination to reach the groundwater. These areas are determined by looking at the characteristics of the soil, groundwater, aquifer, and well.

The most probable area for contamination to reach the drinking water well is the area that contributes water to the well, the groundwater recharge area. This area is designated as the drinking water protection area

(DWPA). Because releases of contaminants within the protection area are most likely to impact the drinking water well, this area will serve as the focus for voluntary protection efforts.

An analytical calculation was used to determine the size and shape of the DWPA for the River Terrace RV Park and Trailer Court. The input parameters describing the attributes of the aquifer in this calculation were adopted from Groundwater (*Freeze and Cherry 1979*). Available geology and groundwater contours were also considered to take into account any uncertainties in groundwater flow and aquifer characteristics to arrive at a meaningful protection area.

The protection areas established for wells by the ADEC are usually separated into four zones, limited by the watershed. These zones correspond to differences in the time-of-travel (TOT) of the water moving through the aquifer to the well (Please refer to the Guidance Manual for Class A Public Water Systems for additional information).

The time of travel for contaminants within the water varies and is dependent on the physical and chemical characteristics of each contaminant. The following is a summary of the four protection area zones for wells and the calculated time-of-travel for each:

Table 1. Definition of Zones

	D # 141
Zone	Definition
A	¹ / ₄ the distance for the 2-yr. time-of-travel
В	Less than 2 years time-of-travel
C	Less than 5 years time-of-travel
D	Less than 10 years time-of-travel

The DWPA for the River Terrace RV Park and Trailer Court was determined using an analytical calculation and includes Zone A, B, C, and D (See Map 1 of Appendix A).

INVENTORY OF POTENTIAL AND EXISTING CONTAMINANT SOURCES

The Drinking Water Protection Program has completed an inventory of potential and existing sources of contamination within the River Terrace RV Park and Trailer Court DWPA. This inventory was completed through a search of agency records and other publicly available information. Potential sources of contamination to the drinking water aquifer include a wide range of categories and types. Potential drinking water contaminants are found within agricultural, residential, commercial, and industrial areas, but can

also occur within areas that have little or no development.

For the basis of all Class A public water system assessments, six categories of drinking water contaminants were inventoried. They include:

- Bacteria and viruses;
- Nitrates and/or nitrites;
- Volatile organic chemicals;
- Heavy metals, cyanide, and other inorganic chemicals:
- Synthetic organic chemicals; and
- Other organic chemicals.

The sources are displayed on Map 1 of Appendix C and summarized in Table 1 of Appendix B.

RANKING OF CONTAMINANT RISKS

Once the potential and existing sources of contamination have been identified, they are assigned a ranking according to what type and level of risk they represent. Ranking of contaminant risks for a "potential" or "existing" source of contamination is a function of toxicity and volumes of specific contaminants associated with that source. Rankings include:

- Low;
- Medium:
- High; and
- Very High.

The time-of-travel for contaminants within the water varies and is dependent on the physical and chemical characteristics of each contaminant. Bacteria and Viruses are only inventoried in Zones A and B because of their short life span. Only "Very High" and "High" rankings are inventoried within the outer Zone D due to the probability of contaminant dilution by the time the contaminants get to the well.

Tables 2 through 4 in Appendix B contain the ranking of potential and existing sources of contamination with respect to bacteria and viruses, nitrates and/or nitrites, volatile organic chemicals, inorganic chemicals, synthetic organic chemicals and other organic chemicals.

VULNERABILITY OF RIVER TERRACE RV PARK AND TRAILER COURT DRINKING WATER SYSTEM

Vulnerability of a drinking water source to contamination is a combination of two factors:

- Natural susceptibility; and
- Contaminant risks.

Appendix D contains eight charts, which together form the 'Vulnerability Analysis' for a source water

assessment for a public drinking water source. Chart 1 analyzes the 'Susceptibility of the Wellhead' to contamination by looking at the construction of the well and its surrounding area. Chart 2 analyzes the 'Susceptibility of the Aguifer' to contamination by looking at the naturally occurring attributes of the water source and influences on the groundwater system that might lead to contamination. Chart 3 analyzes 'Contaminant Risks' for the drinking water source with respect to bacteria and viruses. The 'Contaminant Risks' portion of the analysis considers potential sources of contaminants as well as a review of contamination that has or may have occurred, but has not arrived or been detected at the well. Lastly, Chart 4 contains the 'Vulnerability Analysis for Bacteria and Viruses'. Charts 5 through 14 contain the Contaminant Risks and Vulnerability Analyses for nitrates and nitrites, volatile organic chemicals, heavy metals, cyanide, and other inorganic chemicals, synthetic organic chemicals, and other organic chemicals, respectively.

A score for the Natural Susceptibility is reached by considering the properties of the well and the aquifer.

Susceptibility of the Wellhead (0 – 25 Points) (Chart 1 of Appendix D)

+

Susceptibility of the Aquifer (0-25 Points)(Chart 2 of Appendix D)

=

Natural Susceptibility (Susceptibility of the Well) (0-50 Points)

A ranking is assigned for the Natural Susceptibility according to the point score:

Natural Susceptibility Ratings							
40 to 50 pts	Very High						
30 to < 40 pts	High						
20 to < 30 pts	Medium						
< 20 pts	Low						

The well logs for both wells are unavailable. The depth of both wells are estimated to be >200 feet below ground surface. The wells are reportedly completed in an artesian aquifer. Nearby wells completed in artesian aquifers indicate multiple confining layers with a total thickness greater than 100 feet. The confining layers and artesian properties provide a protection from the movement of contaminants in the subsurface. However, the combination of increased pumping resulting in a loss of artesian pressure and wells

penetrating the confining layers up gradient may provide a path for contaminants to enter the confined aquifer.

Table 2 shows the Susceptibility scores and ratings for the River Terrace RV Park and Trailer Court.

Table 2. Susceptibility

Score 10	Rating Medium
5	Low
15	Low
	10

Contaminant Risk Ratings						
40 to 50 pts	Very High					
30 to < 40 pts	High					
20 to < 30 pts	Medium					
< 20 pts	Low					

Contaminant risks to a drinking water source depend on the type, number or density, and distribution of contaminant sources. This score has been derived from an examination of existing and historical contamination that has been detected at the drinking water source through routine sampling. It also evaluates potential sources of contamination. Flow charts are used to assign a point score, and ratings are assigned in the same way as for the natural susceptibility:

Table 3 summarizes the Contaminant Risks for each category of drinking water contaminants..

Table 3. Contaminant Risks

	C	D 4
Category	Score	Rating
Bacteria and Viruses	40	Very High
Nitrates and/or Nitrites	40	Very High
Volatile Organic Chemicals	35	High
Heavy Metals, Cyanide, and		
Other Inorganic Chemicals	50	Very High
Synthetic Organic Chemicals	17	Low
Other Organic Chemicals	40	Low

Finally, an overall vulnerability score is assigned for each water system by combining each of the

contaminant risk scores with the natural susceptibility score:

Natural Susceptibility
$$(0 - 50 \text{ points})$$

+

Contaminant Risks (0 - 50 points)

=

Vulnerability of the Drinking Water Source to Contamination (0 - 100).

Again, rankings are assigned according to a point score:

Table 4 contains the overall vulnerability scores (0 – 100) and ratings for each of the three categories of drinking water contaminants. Note: scores are rounded off to the nearest five.

Overall Vulnerability Ratings						
80 to 100 pts	Very High					
60 to < 80 pts	High					
40 to < 60 pts	Medium					
< 40 pts	Low					

Table 4. Overall Vulnerability

Category	Score	Rating
Bacteria and Viruses	55	Medium
Nitrates and Nitrites	55	Medium
Volatile Organic Chemicals	55	Medium
Heavy Metals, Cyanide, and		
Other Inorganic Chemicals	65	High
Synthetic Organic Chemicals	32	Low
Other Organic Chemicals	55	Medium

Bacteria and Viruses

Roads, large capacity septic systems, residential area, residential septic systems, sewer lines, seafood processing, medical facilities, motor vehicle waste disposal wells and industrial process waste water represent the greatest risk for bacteria and viruses to this drinking water well.

Only a small amount of bacteria and viruses are required to endanger public health. Coli forms are found naturally in the environment and although they aren't necessarily a health threat, it is an indicator of other potentially harmful bacteria in the water, more specifically, fecal coli forms and E. coli which only come from human and animal fecal waste (EPA, 2002). Harmful bacteria can cause diarrhea, cramps, nausea,

headaches, or other symptoms (EPA, 2002). Sampling has not detected bacteria or viruses within source waters.

After combining the contaminant risk for bacteria and viruses with the natural susceptibility of the well, the overall vulnerability of the well to contamination is medium.

Nitrates and Nitrites

Roads, large capacity septic systems, residential area, residential septic systems, industrial process water disposal wells, dry cleaners and medical facilities represent the greatest risk to nitrates and nitrites for this source of public drinking water.

Nitrates are very mobile, moving at approximately the same rate as water. The sampling history for the River Terrace RV Park and Trailer Court well indicates that nitrate concentrations have not been detected.

After combining the contaminant risk for nitrates and nitrites with the natural susceptibility of the well, the overall vulnerability of the well to nitrate and nitrite contamination is medium

Volatile Organic Chemicals

Dry cleaners, taxidermist, industrial process water disposal wells, recognized contaminated sites, motor vehicle dealerships and repair shops, print shops, heavy equipment storage and sign manufacturing represent the greatest identified risk for volatile organic chemical contamination to the well.

Approximately 20% residents in the area typically heat their homes with various types of on-site fuel sources, including propane and heating oil stored in aboveground or underground storage tanks. Although this report does not address heating oil tanks (unless their location is known), they can pose a risk of volatile organic chemical contamination to drinking water sources. The most common causes of fuel leaks of these heating oil systems are overfilling the tank, ruptured fuel lines, leaking storage tanks, damaged or faulty valves and vandalism. Secondary containment around the tank and regular system maintenance can help prevent many of these harmful fuel leaks and help protect the drinking water supply.

Volatile Organic Chemicals have not been detected within source waters. After combining the contaminant risk for volatile organic chemicals with the natural susceptibility of the well, the overall vulnerability of the well to contamination is medium.

Heavy Metals, Cyanide, and Other Inorganic Chemicals

Industrial process water disposal wells, motor vehicle repair shops, print shops, motor vehicle waste disposal wells, sign manufacturing, recognized contaminated sites and existing contamination represent the greatest risk for inorganic chemicals to the well.

Samplings of inorganic chemicals have detected arsenic at levels exceeding the current maximum contaminant levels (MCLs). The MCL is the maximum level of contaminant that is allowed to exist in drinking water and still be consumed by humans without harmful health effects. The most recent detection of arsenic detected 0.0141 mg/l exceeds the current MCL of 0.01mg/l. Prolonged exposure to levels exceeding the MCL can cause skin damage, problems with circulatory systems, and may create an increased risk of developing cancer (EPA, 2002).

After combining the contaminant risk for heavy metals, cyanide and other inorganic chemicals with the natural susceptibility of the well, the overall vulnerability of the well to contamination is high.

Synthetic Organic Chemicals

Sewer lines, farm machinery, residential area and residential septic systems represent the greatest risk for inorganic chemicals to the well.

Sampling for synthetic organic chemicals has not occurred. The system currently has an SOC waiver and is not required to sample.

After combining the contaminant risk for snythetic organic chemicals with the natural susceptibility of the well, the overall vulnerability of the well to contamination is low.

Other Organic Chemicals

Industrial process water disposal wells, heavy equipment storage, motor vehicle dealerships, motor vehicle waste disposal wells, residential areas, sewer lines and residential septic systems represent the greatest risk for other organic chemicals to the well.

Sampling for other organic chemicals has not occurred. The system currently has an OOC waiver and is not required to sample.

After combining the contaminant risk for snythetic organic chemicals with the natural susceptibility of the well, the overall vulnerability of the well to contamination is medium.

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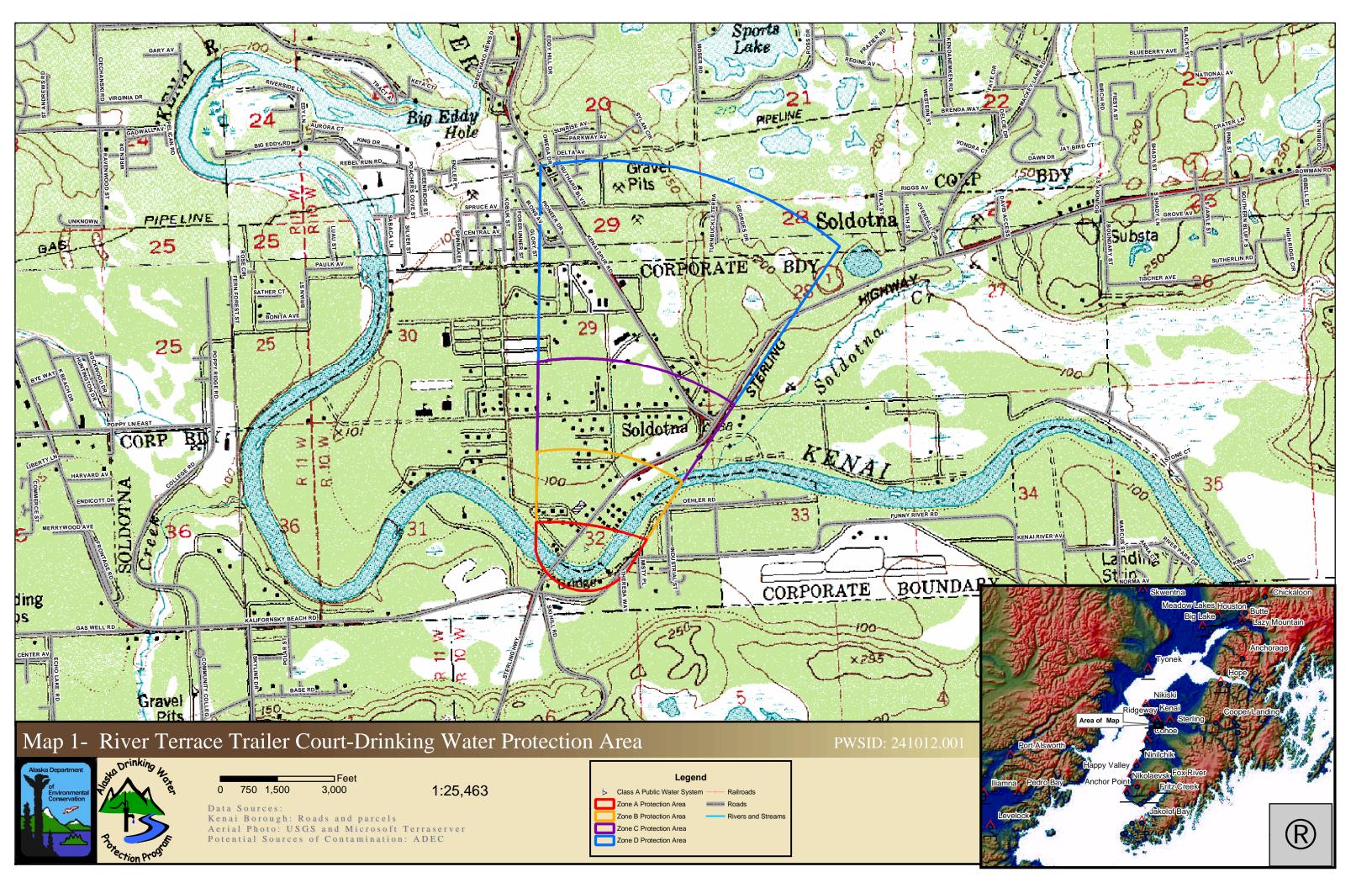
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APPENDIX A

River Terrace RV Park and Trailer Court Drinking Water Protection Area Location Map (Map 1)



APPENDIX B

Contaminant Source Inventory and Risk Ranking for River Terrace RV Park and Trailer Court (Tables 1-7)

Table 1

Contaminant Source Inventory for River Terrace Trailer Court

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Map Number	Comments
Dry cleaners	C10	C10-1	A	2	44669 STERLING HWY
Motor/motor vehicle supplies stores	C28	C28-1	A	2	44742 STERLING HWY
Taxidermists	C41	C41-1	A	2	44761 STERLING HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-46	A	2	Zone A has approximately 46 sewer lines identified. The sewer lines were identified from parcels located in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-1-3	A	2	Zone A has 3 large capacity septic systems identified
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-1	A	2	44761 STERLING HWY
Seafood processing	N10	N10-1	A	2	44761 STERLING HWY
Residential Areas	R01	R01-1	A	2	Zone A has 9 residential acres identified
Septic systems (serves one single-family home)	R02	R02-1-6	A	2	Zone A has 6 residential septic systems identified
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-3	A	2	44761 Sterling Hwy. Former River Terrace Laundromat. Tetrachloroethylene (PCE) contamination in soil and groundwater. File No. 2333.38.014 ADEC Contaminated Sites program has listed the site as High priority.
Highways and roads, paved (cement or asphalt)	X20	X20-1-5	A	2	Zone A has 5 roads identified. Assumed to be paved.
Campgrounds and RV Parks	X35	X35-1	A	2	44761 STERLING HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	2	44720 STERLING HWY
Bowling centers	C06	C06-1	В	2	44619 STERLING HWY
Bowling centers	C06	C06-2	В	2	44619 STERLING HWY
Construction trade areas and materials	C09	C09-1	В	2	44539 STERLING HWY # 211
Dry cleaners	C10	C10-1	В	2	44624 STERLING HWY
Florists	C12	C12-1	В	2	44619 STERLING HWY
Heavy equipment rental/storage	C18	C18-1	В	2	265 WILSON LN
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	В	2	44660 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-1	В	2	44624 STERLING HWY # B

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Map Number	Comments
Printers, publishers, copiers	C37	C37-1	В	2	44539 STERLING HWY # 209
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-47-147	В	2	Zone B has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone B.
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-2	В	2	44624 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-2	В	2	44624 STERLING HWY # B
Sign manufacturing	139	I39-1	В	2	44619 STERLING HWY
Residential Areas	R01	R01-2	В	2	Zone B has 4 residential acres (R01) identified
Septic systems (serves one single-family home)	R02	R02-7-11	В	2	Zone B has 5 residential septic systems identified.
Closed tanks, diesel (underground)	T09	T09-1	В	2	238 WILSON
Closed tanks, gasoline (underground)	T13	T13-1	В	2	238 WILSON
Closed tanks, gasoline (underground)	T13	T13-2	В	2	238 WILSON
Closed tanks, gasoline (underground)	T13	T13-3	В	2	44619 STERLING HWY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-2	В	2	400 Sout Kobuk Street. File No. 2333.38.018 RecKey-1992230912002. Complaint of battery smashing operation on site. Priority: Medium
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-4	В	2	Mile 95 Sterling High Highway: Former Unocal Bulk Plant Facility 0745 Excavation. revealed diesel saturation at a 3' depth. Groundwater contamination suspected. Extent of contamination and health impact unknown. The site is listed as High priority.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-1	В	2	44660 STERLING HWY-During a site assessment performed at a former service station, petroleum contamination was encountered. Sources of contamination include previously removed regulated UST's as well as non-UST sources. Site ranked as Low priority.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-1	В	2	229 WILSON
Highways and roads, paved (cement or asphalt)	X20	X20-6-13	В	2	Zone B has 8 roads identified. Assumed to be paved.
Motor vehicle/general storage yards/facilities	X27	X27-1	В	2	229 WILSON LN
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	В	2	167 WARE HOUSE DR # C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	В	2	44539 STERLING HWY # 212
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	В	2	44539 STERLING HWY # 214
Farm machinery areas	A03	A03-1	C	2	265 N BINKLEY ST
Construction trade areas and materials	C09	C09-1	C	2	241 N ASPEN DR

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Map Number	Comments
Gasoline stations (without repair shop)	C15	C15-2	С	2	44279 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-1	С	2	44224 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-2	С	2	44152 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-3	С	2	44024 STERLING HWY
Hardware stores	C17	C17-1	С	3	267 N ASPEN DR
Hardware stores	C17	C17-2	С	2	180 S BINKLEY ST
Hardware stores	C17	C17-3	С	3	35060 KENAI SPUR HWY
Heavy equipment rental/storage	C18	C18-2	С	3	241 N ASPEN DR
Jewelers	C19	C19-1	С	2	44332 STERLING HWY # 36
Jewelers	C19	C19-2	С	2	34851 KENAI SPUR HWY # 1
Laundromats without dry cleaning	C22	C22-1	С	2	121 SMITHS WAY
Motor/motor vehicle supplies stores	C28	C28-2	С	2	44096 STERLING HWY
Motor/motor vehicle supplies stores	C28	C28-3	С	2	127 SMITHS WAY
Motor /motor vehicle repair shops	C31	C31-2	С	2	44055 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-3	С	3	43850 STERLING HWY
Paint sales /service	C32	C32-1	С	3	35093 KENAI SPUR HWY
Pet groomers	C34	C34-1	С	3	281 N ASPEN DR
Pharmacies (with on-site wastewater disposal)	C35	C35-1	С	2	245 N BINKLEY ST
Photography supplies/photo processing laboratories	C36	C36-1	С	2	173 E REDOUBT AVE
Photography supplies/photo processing laboratories	C36	C36-2	С	3	35036 KENAI SPUR HWY
Taxidermists	C41	C41-2	С	2	113 SMITHS WAY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-148-248	С	2	Zone C has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone C.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4	С	2	Zone C has 1 large capacity septic system identified.
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-3	С	2	BIRCH & STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4	С	2	44055 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-5	С	2	44024 STERLING HWY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Map Number	Comments
Residential Areas	R01	R01-3	С	2	Zone C has 2 residential acres identified.
Septic systems (serves one single-family home)	R02	R02-12-15	C	2	Zone C has 4 residential septics systems identified.
Tanks, diesel (underground)	T08	T08-2	С	2	44279 STERLING HWY
Tanks, diesel (underground)	T08	T08-3	С	2	44224 STERLING HWY
Tanks, diesel (underground)	T08	T08-4	С	2	44152 STERLING HWY
Tanks, diesel (underground)	T08	T08-5	С	2	44024 STERLING HWY
Closed tanks, diesel (underground)	T09	T09-2	С	2	127 SMITH WAY
Tanks, gasoline (underground)	T12	T12-10	С	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-11	С	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-12	С	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-3	С	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-4	С	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-5	С	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-6	С	2	44224 STERLING HWY
Tanks, gasoline (underground)	T12	T12-7	С	2	44224 STERLING HWY
Tanks, gasoline (underground)	T12	T12-8	С	2	44152 STERLING HWY
Tanks, gasoline (underground)	T12	T12-9	С	2	44152 STERLING HWY
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-1	С	3	241 N ASPEN DR
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-2	С	3	241 N ASPEN DR
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-10	С	2	44149 Sterling Highway: ADOT&PF Soldotna Tar Pit-Mile 95 Sterling Highwaytar pit was located in 1999. Wastes encountered included diesel range and residual range petroleum hydrocarbons. ADEC Contaminated Sites program lists the site as High priority.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-11	С	2	ADOT&PF Soldotna Maintenance Stn-Mile 94.6 Sterling Hwy. Six areas of contamination were identified in 1992, primarily around storage areas for fuel, oil, salt, paint and solvents, plus an old septic tank system. Site is listed as High priority
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-5	С	33	144 N Binkley Street-Kenai Vocational Center. File No. 2333.38.022 During the removal of underground fuel tanks, diesel contamination discovered in both soil and groundwater surrounding excavation. The site is listed as Medium priority.

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Map Number	Comments
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-6	С	2	44279 STERLING HWY-Soldotna Texaco (Tesoro #207). Petroleum contamination remains at the site due to past practices as a former service station. The site is listed as High priority.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-8	С	2	Mile 94.6 Sterling Hwy. ADOT&PF Soldotna Salt Pile- File No. 2333.38.004 Salt in sand pile leaching into groundwater and Kenai River.The site has been ranked as High priority.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-2	С	2	44279 STERLING HWY- Contaminated soil encountered during the removal of underground storage tanks. Soil and groundwater contamination discovered. Site is ranked as High priority.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-3	С	2	44224 STERLING HWY-Site appears to be closed.Contact ADEC Contaminated Sites for further information.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-4	С	2	44149 Sterling Highway: ADOT&PF Soldotna Tar Pit-Mile 95 Sterling Highwaytar pit was located in 1999. Wastes encountered included diesel range and residual range petroleum hydrocarbons. ADEC Contaminated Sites program lists the site as High priority.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-2	C	3	139 PARK AVE
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-3	C	2	44152 STERLING HWY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-4	C	2	44024 STERLING HWY
Boat yards and marinas	X15	X15-1	С	3	255 N ASPEN DR
Highways and roads, paved (cement or asphalt)	X20	X20-14-26	С	3	Zone C has 13 roads identified. Assumed to be paved
Firehouses	X38	X38-1	С	2	231 S BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	С	2	44109 STERLING HWY # D
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	С	3	35670 KENAI SPUR HWY # 103
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	C	3	35670 KENAI SPUR HWY # 104B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	C	3	35670 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	С	2	155 SMITHS WAY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	С	2	245 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	С	2	265 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	С	2	102 E REDOUBT AVE

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Map Number	Comments
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	С	2	246 S BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	С	2	254 N BINKLEY ST # B
Car washes with engine or undercarriage cleaning	C08	C08-1	D	3	224 KENAI AVE
Gasoline stations (without repair shop)	C15	C15-1	D	3	35482 KENAI SPUR HWY
Gasoline stations (without repair shop)	C15	C15-3	D	3	43883 STERLING HWY
Printers, publishers, copiers	C37	C37-2	D	3	35251 KENAI SPUR HWY # A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	3	44710 SPRUCE AVE
Cement manufacturing	108	I08-1	D	3	224 KENAI AVE
Tanks, diesel (underground)	T08	T08-1	D	3	35482 KENAI SPUR HWY
Tanks, diesel (underground)	T08	T08-6	D	3	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-1	D	3	35482 KENAI SPUR HWY
Tanks, gasoline (underground)	T12	T12-13	D	3	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-14	D	3	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-2	D	3	35482 KENAI SPUR HWY

Table 2

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Bacteria and Viruses

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Dry cleaners	C10	C10-1	A	Low	2	44669 STERLING HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-46	A	Medium	2	Zone A has approximately 46 sewer lines identified. The sewer lines were identified from parcels located in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-1-3	A	High	2	Zone A has 3 large capacity septic systems identified
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-1	A	High	2	44761 STERLING HWY
Seafood processing	N10	N10-1	A	Medium	2	44761 STERLING HWY
Residential Areas	R01	R01-1	A	Low	2	Zone A has 9 residential acres identified
Septic systems (serves one single-family home)	R02	R02-1-6	A	Low	2	Zone A has 6 residential septic systems identified
Highways and roads, paved (cement or asphalt)	X20	X20-1-5	A	Low	2	Zone A has 5 roads identified. Assumed to be paved.
Campgrounds and RV Parks	X35	X35-1	A	Low	2	44761 STERLING HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Medium	2	44720 STERLING HWY
Dry cleaners	C10	C10-1	В	Low	2	44624 STERLING HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-47-147	В	Medium	2	Zone B has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone B.
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-2	В	High	2	44624 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-2	В	Low	2	44624 STERLING HWY # B
Residential Areas	R01	R01-2	В	Low	2	Zone B has 4 residential acres (R01) identified
Septic systems (serves one single-family home)	R02	R02-7-11	В	Low	2	Zone B has 5 residential septic systems identified.
Highways and roads, paved (cement or asphalt)	X20	X20-6-13	В	Low	2	Zone B has 8 roads identified. Assumed to be paved.

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Bacteria and Viruses

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Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	В	Medium	2	167 WARE HOUSE DR # C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	В	Medium	2	44539 STERLING HWY # 212
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	В	Medium	2	44539 STERLING HWY # 214
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4	С	High	2	Zone C has 1 large capacity septic system identified.
Highways and roads, paved (cement or asphalt)	X20	X20-14-26	С	Low	3	Zone C has 13 roads identified. Assumed to be paved

Table 3

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Nitrates/Nitrites

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Dry cleaners	C10	C10-1	A	Low	2	44669 STERLING HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-46	A	Medium	2	Zone A has approximately 46 sewer lines identified. The sewer lines were identified from parcels located in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-1-3	A	High	2	Zone A has 3 large capacity septic systems identified
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-1	A	High	2	44761 STERLING HWY
Seafood processing	N10	N10-1	A	Low	2	44761 STERLING HWY
Residential Areas	R01	R01-1	A	Low	2	Zone A has 9 residential acres identified
Septic systems (serves one single-family home)	R02	R02-1-6	A	Low	2	Zone A has 6 residential septic systems identified
Highways and roads, paved (cement or asphalt)	X20	X20-1-5	A	Low	2	Zone A has 5 roads identified. Assumed to be paved.
Campgrounds and RV Parks	X35	X35-1	A	Low	2	44761 STERLING HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	44720 STERLING HWY
Dry cleaners	C10	C10-1	В	Low	2	44624 STERLING HWY
Florists	C12	C12-1	В	Low	2	44619 STERLING HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-47-147	В	Medium	2	Zone B has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone B.
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-2	В	High	2	44624 STERLING HWY
Residential Areas	R01	R01-2	В	Low	2	Zone B has 4 residential acres (R01) identified
Septic systems (serves one single-family home)	R02	R02-7-11	В	Low	2	Zone B has 5 residential septic systems identified.
Highways and roads, paved (cement or asphalt)	X20	X20-6-13	В	Low	2	Zone B has 8 roads identified. Assumed to be paved.
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	В	Low	2	167 WARE HOUSE DR # C

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Nitrates/Nitrites

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	В	Low	2	44539 STERLING HWY # 212
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	В	Low	2	44539 STERLING HWY # 214
Hardware stores	C17	C17-1	C	Low	3	267 N ASPEN DR
Hardware stores	C17	C17-2	C	Low	2	180 S BINKLEY ST
Hardware stores	C17	C17-3	C	Low	3	35060 KENAI SPUR HWY
Laundromats without dry cleaning	C22	C22-1	C	Low	2	121 SMITHS WAY
Pharmacies (with on-site wastewater disposal)	C35	C35-1	C	Low	2	245 N BINKLEY ST
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-148-248	С	Medium	2	Zone C has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone C.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4	C	High	2	Zone C has 1 large capacity septic system identified.
Residential Areas	R01	R01-3	C	Low	2	Zone C has 2 residential acres identified.
Septic systems (serves one single-family home)	R02	R02-12-15	C	Low	2	Zone C has 4 residential septics systems identified.
Highways and roads, paved (cement or asphalt)	X20	X20-14-26	C	Low	3	Zone C has 13 roads identified. Assumed to be paved
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	С	Low	2	44109 STERLING HWY # D
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	С	Low	3	35670 KENAI SPUR HWY # 103
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	С	Low	3	35670 KENAI SPUR HWY # 104B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	С	Low	3	35670 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	С	Low	2	155 SMITHS WAY

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Nitrates/Nitrites

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	С	Low	2	245 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	С	Low	2	265 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	С	Low	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	С	Low	2	246 S BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	C	Low	2	254 N BINKLEY ST # B

Table 4

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Dry cleaners	C10	C10-1	A	High	2	44669 STERLING HWY
Motor/motor vehicle supplies stores	C28	C28-1	A	Low	2	44742 STERLING HWY
Taxidermists	C41	C41-1	Α	Medium	2	44761 STERLING HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-46	A	Low	2	Zone A has approximately 46 sewer lines identified. The sewer lines were identified from parcels located in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-1-3	A	Low	2	Zone A has 3 large capacity septic systems identified
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-1	A	High	2	44761 STERLING HWY
Residential Areas	R01	R01-1	A	Low	2	Zone A has 9 residential acres identified
Septic systems (serves one single-family home)	R02	R02-1-6	A	Low	2	Zone A has 6 residential septic systems identified
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-3	A	High	2	44761 Sterling Hwy. Former River Terrace Laundromat. Tetrachloroethylene (PCE) contamination in soil and groundwater. File No. 2333.38.014 ADEC Contaminated Sites program has listed the site as High priority.
Highways and roads, paved (cement or asphalt)	X20	X20-1-5	A	Low	2	Zone A has 5 roads identified. Assumed to be paved.
Campgrounds and RV Parks	X35	X35-1	A	Low	2	44761 STERLING HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	44720 STERLING HWY
Bowling centers	C06	C06-1	В	Low	2	44619 STERLING HWY
Bowling centers	C06	C06-2	В	Low	2	44619 STERLING HWY
Construction trade areas and materials	C09	C09-1	В	Low	2	44539 STERLING HWY # 211
Dry cleaners	C10	C10-1	В	High	2	44624 STERLING HWY
Heavy equipment rental/storage	C18	C18-1	В	Medium	2	265 WILSON LN

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	В	Medium	2	44660 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-1	В	Medium	2	44624 STERLING HWY # B
Printers, publishers, copiers	C37	C37-1	В	High	2	44539 STERLING HWY # 209
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-47-147	В	Low	2	Zone B has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone B.
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-2	В	High	2	44624 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-2	В	High	2	44624 STERLING HWY # B
Sign manufacturing	139	I39-1	В	Medium	2	44619 STERLING HWY
Residential Areas	R01	R01-2	В	Low	2	Zone B has 4 residential acres (R01) identified
Septic systems (serves one single-family home)	R02	R02-7-11	В	Low	2	Zone B has 5 residential septic systems identified.
Closed tanks, diesel (underground)	T09	T09-1	В	Medium	2	238 WILSON
Closed tanks, gasoline (underground)	T13	T13-1	В	Medium	2	238 WILSON
Closed tanks, gasoline (underground)	T13	T13-2	В	Medium	2	238 WILSON
Closed tanks, gasoline (underground)	T13	T13-3	В	Medium	2	44619 STERLING HWY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-4	В	High	2	Mile 95 Sterling High Highway: Former Unocal Bulk Plant Facility 0745 Excavation. revealed diesel saturation at a 3' depth. Groundwater contamination suspected. Extent of contamination and health impact unknown. The site is listed as High priority.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-1	В	Low	2	44660 STERLING HWY-During a site assessment performed at a former service station, petroleum contamination was encountered. Sources of contamination include previously removed regulated UST's as well as non-UST sources. Site ranked as Low priority.
Highways and roads, paved (cement or asphalt)	X20	X20-6-13	В	Low	2	Zone B has 8 roads identified. Assumed to be paved.

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Motor vehicle/general storage yards/facilities	X27	X27-1	В	Low	2	229 WILSON LN
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	В	Low	2	167 WARE HOUSE DR # C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	В	Low	2	44539 STERLING HWY # 212
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	В	Low	2	44539 STERLING HWY # 214
Farm machinery areas	A03	A03-1	C	Low	2	265 N BINKLEY ST
Construction trade areas and materials	C09	C09-1	C	Low	2	241 N ASPEN DR
Gasoline stations (without repair shop)	C15	C15-2	C	High	2	44279 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-1	C	High	2	44224 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-2	C	High	2	44152 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-3	C	High	2	44024 STERLING HWY
Hardware stores	C17	C17-1	C	Low	3	267 N ASPEN DR
Hardware stores	C17	C17-2	C	Low	2	180 S BINKLEY ST
Hardware stores	C17	C17-3	C	Low	3	35060 KENAI SPUR HWY
Heavy equipment rental/storage	C18	C18-2	C	Medium	3	241 N ASPEN DR
Jewelers	C19	C19-1	C	Low	2	44332 STERLING HWY # 36
Jewelers	C19	C19-2	C	Low	2	34851 KENAI SPUR HWY # 1
Laundromats without dry cleaning	C22	C22-1	C	Low	2	121 SMITHS WAY
Motor/motor vehicle supplies stores	C28	C28-2	С	Low	2	44096 STERLING HWY
Motor/motor vehicle supplies stores	C28	C28-3	С	Low	2	127 SMITHS WAY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Motor /motor vehicle repair shops	C31	C31-2	C	Medium	2	44055 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-3	C	Medium	3	43850 STERLING HWY
Paint sales /service	C32	C32-1	C	Medium	3	35093 KENAI SPUR HWY
Pet groomers	C34	C34-1	C	Low	3	281 N ASPEN DR
Photography supplies/photo processing laboratories	C36	C36-1	C	Medium	2	173 E REDOUBT AVE
Photography supplies/photo processing laboratories	C36	C36-2	C	Medium	3	35036 KENAI SPUR HWY
Taxidermists	C41	C41-2	C	Medium	2	113 SMITHS WAY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-148-248	С	Low	2	Zone C has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone C.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4	С	Low	2	Zone C has 1 large capacity septic system identified.
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-3	С	High	2	BIRCH & STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4	C	High	2	44055 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-5	С	High	2	44024 STERLING HWY
Residential Areas	R01	R01-3	C	Low	2	Zone C has 2 residential acres identified.
Septic systems (serves one single-family home)	R02	R02-12-15	C	Low	2	Zone C has 4 residential septics systems identified.
Tanks, diesel (underground)	T08	T08-2	C	High	2	44279 STERLING HWY
Tanks, diesel (underground)	T08	T08-3	C	High	2	44224 STERLING HWY
Tanks, diesel (underground)	T08	T08-4	С	High	2	44152 STERLING HWY
Tanks, diesel (underground)	T08	T08-5	С	High	2	44024 STERLING HWY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Closed tanks, diesel (underground)	T09	T09-2	С	Medium	2	127 SMITH WAY
Tanks, gasoline (underground)	T12	T12-10	C	High	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-11	C	High	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-12	C	High	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-3	C	High	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-4	C	High	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-5	C	High	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-6	C	High	2	44224 STERLING HWY
Tanks, gasoline (underground)	T12	T12-7	C	High	2	44224 STERLING HWY
Tanks, gasoline (underground)	T12	T12-8	C	High	2	44152 STERLING HWY
Tanks, gasoline (underground)	T12	T12-9	C	High	2	44152 STERLING HWY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-10	С	High	2	44149 Sterling Highway: ADOT&PF Soldotna Tar Pit-Mile 95 Sterling Highwaytar pit was located in 1999. Wastes encountered included diesel range and residual range petroleum hydrocarbons. ADEC Contaminated Sites program lists the site as High priority.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-11	С	High	2	ADOT&PF Soldotna Maintenance Stn-Mile 94.6 Sterling Hwy. Six areas of contamination were identified in 1992, primarily around storage areas for fuel, oil, salt, paint and solvents, plus an old septic tank system. Site is listed as High priority
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-5	С	Medium	33	144 N Binkley Street-Kenai Vocational Center. File No. 2333.38.022 During the removal of underground fuel tanks, diesel contamination discovered in both soil and groundwater surrounding excavation. The site is listed as Medium priority.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-3	C	Low	2	44224 STERLING HWY-Site appears to be closed.Contact ADEC Contaminated Sites for further information.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-2	C	Low	3	139 PARK AVE

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-3	С	Low	2	44152 STERLING HWY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-4	С	Low	2	44024 STERLING HWY
Boat yards and marinas	X15	X15-1	C	Low	3	255 N ASPEN DR
Highways and roads, paved (cement or asphalt)	X20	X20-14-26	C	Low	3	Zone C has 13 roads identified. Assumed to be paved
Firehouses	X38	X38-1	C	Low	2	231 S BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	С	Low	2	44109 STERLING HWY # D
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	С	Low	3	35670 KENAI SPUR HWY # 103
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	С	Low	3	35670 KENAI SPUR HWY # 104B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	С	Low	3	35670 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	С	Low	2	155 SMITHS WAY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	C	Low	2	245 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	С	Low	2	265 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	С	Low	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	C	Low	2	246 S BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	C	Low	2	254 N BINKLEY ST # B
Car washes with engine or undercarriage cleaning	C08	C08-1	D	High	3	224 KENAI AVE

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Gasoline stations (without repair shop)	C15	C15-1	D	High	3	35482 KENAI SPUR HWY
Gasoline stations (without repair shop)	C15	C15-3	D	High	3	43883 STERLING HWY
Printers, publishers, copiers	C37	C37-2	D	High	3	35251 KENAI SPUR HWY # A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	High	3	44710 SPRUCE AVE
Cement manufacturing	I08	I08-1	D	High	3	224 KENAI AVE
Tanks, diesel (underground)	T08	T08-1	D	High	3	35482 KENAI SPUR HWY
Tanks, diesel (underground)	T08	T08-6	D	High	3	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-1	D	High	3	35482 KENAI SPUR HWY
Tanks, gasoline (underground)	T12	T12-13	D	High	3	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-14	D	High	3	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-2	D	High	3	35482 KENAI SPUR HWY

Table 5

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Motor/motor vehicle supplies stores	C28	C28-1	A	Low	2	44742 STERLING HWY
Taxidermists	C41	C41-1	A	Low	2	44761 STERLING HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-46	A	Low	2	Zone A has approximately 46 sewer lines identified. The sewer lines were identified from parcels located in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-1-3	A	Low	2	Zone A has 3 large capacity septic systems identified
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-1	A	High	2	44761 STERLING HWY
Residential Areas	R01	R01-1	A	Low	2	Zone A has 9 residential acres identified
Septic systems (serves one single-family home)	R02	R02-1-6	A	Low	2	Zone A has 6 residential septic systems identified
Highways and roads, paved (cement or asphalt)	X20	X20-1-5	A	Low	2	Zone A has 5 roads identified. Assumed to be paved.
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	44720 STERLING HWY
Construction trade areas and materials	C09	C09-1	В	Low	2	44539 STERLING HWY # 211
Florists	C12	C12-1	В	Low	2	44619 STERLING HWY
Heavy equipment rental/storage	C18	C18-1	В	Low	2	265 WILSON LN
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	В	Low	2	44660 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-1	В	Medium	2	44624 STERLING HWY # B
Printers, publishers, copiers	C37	C37-1	В	Medium	2	44539 STERLING HWY # 209
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-47-147	В	Low	2	Zone B has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone B.
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-2	В	High	2	44624 STERLING HWY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-2	В	High	2	44624 STERLING HWY # B
Sign manufacturing	139	I39-1	В	Medium	2	44619 STERLING HWY
Residential Areas	R01	R01-2	В	Low	2	Zone B has 4 residential acres (R01) identified
Septic systems (serves one single-family home)	R02	R02-7-11	В	Low	2	Zone B has 5 residential septic systems identified.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-2	В	Medium	2	400 Sout Kobuk Street. File No. 2333.38.018 RecKey-1992230912002. Complaint of battery smashing operation on site. Priority: Medium
Highways and roads, paved (cement or asphalt)	X20	X20-6-13	В	Low	2	Zone B has 8 roads identified. Assumed to be paved.
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	В	Low	2	167 WARE HOUSE DR # C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	В	Low	2	44539 STERLING HWY # 212
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	В	Low	2	44539 STERLING HWY # 214
Farm machinery areas	A03	A03-1	C	Low	2	265 N BINKLEY ST
Construction trade areas and materials	C09	C09-1	C	Low	2	241 N ASPEN DR
Gasoline stations (without repair shop)	C15	C15-2	C	Low	2	44279 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-1	C	Low	2	44224 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-2	C	Low	2	44152 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-3	C	Low	2	44024 STERLING HWY
Hardware stores	C17	C17-1	C	Low	3	267 N ASPEN DR
Hardware stores	C17	C17-2	C	Low	2	180 S BINKLEY ST
Hardware stores	C17	C17-3	C	Low	3	35060 KENAI SPUR HWY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Heavy equipment rental/storage	C18	C18-2	С	Low	3	241 N ASPEN DR
Jewelers	C19	C19-1	C	Low	2	44332 STERLING HWY # 36
Jewelers	C19	C19-2	C	Low	2	34851 KENAI SPUR HWY # 1
Motor/motor vehicle supplies stores	C28	C28-2	C	Low	2	44096 STERLING HWY
Motor/motor vehicle supplies stores	C28	C28-3	C	Low	2	127 SMITHS WAY
Motor /motor vehicle repair shops	C31	C31-2	C	Medium	2	44055 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-3	C	Medium	3	43850 STERLING HWY
Paint sales /service	C32	C32-1	C	Low	3	35093 KENAI SPUR HWY
Pharmacies (with on-site wastewater disposal)	C35	C35-1	С	Low	2	245 N BINKLEY ST
Photography supplies/photo processing laboratories	C36	C36-1	C	Medium	2	173 E REDOUBT AVE
Photography supplies/photo processing laboratories	C36	C36-2	C	Medium	3	35036 KENAI SPUR HWY
Taxidermists	C41	C41-2	C	Low	2	113 SMITHS WAY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-148-248	С	Low	2	Zone C has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone C.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4	С	Low	2	Zone C has 1 large capacity septic system identified.
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-3	С	High	2	BIRCH & STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4	С	High	2	44055 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-5	С	High	2	44024 STERLING HWY
Residential Areas	R01	R01-3	C	Low	2	Zone C has 2 residential acres identified.

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Septic systems (serves one single-family home)	R02	R02-12-15	С	Low	2	Zone C has 4 residential septics systems identified.
Tanks, gasoline (underground)	T12	T12-10	C	Medium	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-11	C	Medium	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-12	C	Medium	2	44024 STERLING HWY
Tanks, gasoline (underground)	T12	T12-3	C	Medium	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-4	C	Medium	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-5	C	Medium	2	44279 STERLING HWY
Tanks, gasoline (underground)	T12	T12-6	C	Medium	2	44224 STERLING HWY
Tanks, gasoline (underground)	T12	T12-7	C	Medium	2	44224 STERLING HWY
Tanks, gasoline (underground)	T12	T12-8	C	Medium	2	44152 STERLING HWY
Tanks, gasoline (underground)	T12	T12-9	C	Medium	2	44152 STERLING HWY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-10	С	Medium	2	44149 Sterling Highway: ADOT&PF Soldotna Tar Pit-Mile 95 Sterling Highwaytar pit was located in 1999. Wastes encountered included diesel range and residual range petroleum hydrocarbons. ADEC Contaminated Sites program lists the site as High priority.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-11	С	High	2	ADOT&PF Soldotna Maintenance Stn-Mile 94.6 Sterling Hwy. Six areas of contamination were identified in 1992, primarily around storage areas for fuel, oil, salt, paint and solvents, plus an old septic tank system. Site is listed as High priority
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-8	C	High	2	Mile 94.6 Sterling Hwy. ADOT&PF Soldotna Salt Pile-File No. 2333.38.004 Salt in sand pile leaching into groundwater and Kenai River. The site has been ranked as High priority.
Boat yards and marinas	X15	X15-1	C	Low	3	255 N ASPEN DR
Highways and roads, paved (cement or asphalt)	X20	X20-14-26	С	Low	3	Zone C has 13 roads identified. Assumed to be paved
Firehouses	X38	X38-1	С	Low	2	231 S BINKLEY ST

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals Contaminant Risk Ranking Map CS ID to Comment

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	С	Low	2	44109 STERLING HWY # D
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	С	Low	3	35670 KENAI SPUR HWY # 103
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	С	Low	3	35670 KENAI SPUR HWY # 104B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	С	Low	3	35670 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	С	Low	2	155 SMITHS WAY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	С	Low	2	245 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	С	Low	2	265 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	С	Low	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	С	Low	2	246 S BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	С	Low	2	254 N BINKLEY ST # B
Printers, publishers, copiers	C37	C37-2	D	Medium	3	35251 KENAI SPUR HWY # A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	High	3	44710 SPRUCE AVE
Tanks, gasoline (underground)	T12	T12-1	D	Medium	3	35482 KENAI SPUR HWY

Table 6

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Synthetic Organic Chemicals

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-46	A	Low	2	Zone A has approximately 46 sewer lines identified. The sewer lines were identified from parcels located in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-1-3	A	Low	2	Zone A has 3 large capacity septic systems identified
Residential Areas	R01	R01-1	A	Low	2	Zone A has 9 residential acres identified
Septic systems (serves one single-family home)	R02	R02-1-6	A	Low	2	Zone A has 6 residential septic systems identified
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	44720 STERLING HWY
Printers, publishers, copiers	C37	C37-1	В	Low	2	44539 STERLING HWY # 209
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-47-147	В	Low	2	Zone B has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone B.
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-2	В	Low	2	44624 STERLING HWY # B
Residential Areas	R01	R01-2	В	Low	2	Zone B has 4 residential acres (R01) identified
Septic systems (serves one single-family home)	R02	R02-7-11	В	Low	2	Zone B has 5 residential septic systems identified.
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	В	Low	2	167 WARE HOUSE DR # C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	В	Low	2	44539 STERLING HWY # 212
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	В	Low	2	44539 STERLING HWY # 214
Farm machinery areas	A03	A03-1	C	Medium	2	265 N BINKLEY ST
Paint sales /service	C32	C32-1	C	Low	3	35093 KENAI SPUR HWY
Pet groomers	C34	C34-1	C	Low	3	281 N ASPEN DR
Photography supplies/photo processing laboratories	C36	C36-1	C	Low	2	173 E REDOUBT AVE

Table 6 (continued)

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Synthetic Organic Chemicals

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Photography supplies/photo processing laboratories	C36	C36-2	С	Low	3	35036 KENAI SPUR HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-148-248	С	Low	2	Zone C has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone C.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4	С	Low	2	Zone C has 1 large capacity septic system identified.
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-3	С	Low	2	BIRCH & STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4	С	Low	2	44055 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-5	С	Low	2	44024 STERLING HWY
Residential Areas	R01	R01-3	C	Low	2	Zone C has 2 residential acres identified.
Septic systems (serves one single-family home)	R02	R02-12-15	С	Low	2	Zone C has 4 residential septics systems identified.
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	C	Low	2	44109 STERLING HWY # D
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	С	Low	3	35670 KENAI SPUR HWY # 103
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	С	Low	3	35670 KENAI SPUR HWY # 104B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	С	Low	3	35670 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	С	Low	2	155 SMITHS WAY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	C	Low	2	245 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	C	Low	2	265 N BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	С	Low	2	102 E REDOUBT AVE

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Synthetic Organic Chemicals

PWSID 241012.001

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	С	Low	2	246 S BINKLEY ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	С	Low	2	254 N BINKLEY ST # B

Table 7

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Other Organic Chemicals

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-46	A	Low	2	Zone A has approximately 46 sewer lines identified. The sewer lines were identified from parcels located in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-1-3	A	Low	2	Zone A has 3 large capacity septic systems identified
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-1	A	High	2	44761 STERLING HWY
Residential Areas	R01	R01-1	A	Low	2	Zone A has 9 residential acres identified
Septic systems (serves one single-family home)	R02	R02-1-6	A	Low	2	Zone A has 6 residential septic systems identified
Highways and roads, paved (cement or asphalt)	X20	X20-1-5	A	Low	2	Zone A has 5 roads identified. Assumed to be paved.
Construction trade areas and materials	C09	C09-1	В	Low	2	44539 STERLING HWY # 211
Heavy equipment rental/storage	C18	C18-1	В	Medium	2	265 WILSON LN
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	В	Medium	2	44660 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-1	В	Medium	2	44624 STERLING HWY # B
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-47-147	В	Low	2	Zone B has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone B.
Injection wells (Class V) Industrial Process Water & Water Disposal Wells	D40	D40-2	В	High	2	44624 STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-2	В	Medium	2	44624 STERLING HWY # B
Residential Areas	R01	R01-2	В	Low	2	Zone B has 4 residential acres (R01) identified
Septic systems (serves one single-family home)	R02	R02-7-11	В	Low	2	Zone B has 5 residential septic systems identified.
Highways and roads, paved (cement or asphalt)	X20	X20-6-13	В	Low	2	Zone B has 8 roads identified. Assumed to be paved.
Motor vehicle/general storage yards/facilities	X27	X27-1	В	Low	2	229 WILSON LN

Table 7 (continued)

Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court Sources of Other Organic Chemicals

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Farm machinery areas	A03	A03-1	С	Low	2	265 N BINKLEY ST
Construction trade areas and materials	C09	C09-1	C	Low	2	241 N ASPEN DR
Gasoline stations (without repair shop)	C15	C15-2	C	Low	2	44279 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-1	C	Medium	2	44224 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-2	C	Medium	2	44152 STERLING HWY
Gasoline stations (with repair shop)	C16	C16-3	C	Medium	2	44024 STERLING HWY
Hardware stores	C17	C17-1	C	Low	3	267 N ASPEN DR
Hardware stores	C17	C17-2	C	Low	2	180 S BINKLEY ST
Hardware stores	C17	C17-3	C	Low	3	35060 KENAI SPUR HWY
Heavy equipment rental/storage	C18	C18-2	C	Medium	3	241 N ASPEN DR
Motor /motor vehicle repair shops	C31	C31-2	C	Medium	2	44055 STERLING HWY
Motor /motor vehicle repair shops	C31	C31-3	C	Medium	3	43850 STERLING HWY
Photography supplies/photo processing laboratories	C36	C36-1	C	Low	2	173 E REDOUBT AVE
Photography supplies/photo processing laboratories	C36	C36-2	C	Low	3	35036 KENAI SPUR HWY
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-148-248	С	Low	2	Zone C has greater than 100 sewer lines identified. The sewer lines were identified from parcels located in Zone C.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4	С	Low	2	Zone C has 1 large capacity septic system identified.
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-3	С	Medium	2	BIRCH & STERLING HWY
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4	С	Medium	2	44055 STERLING HWY

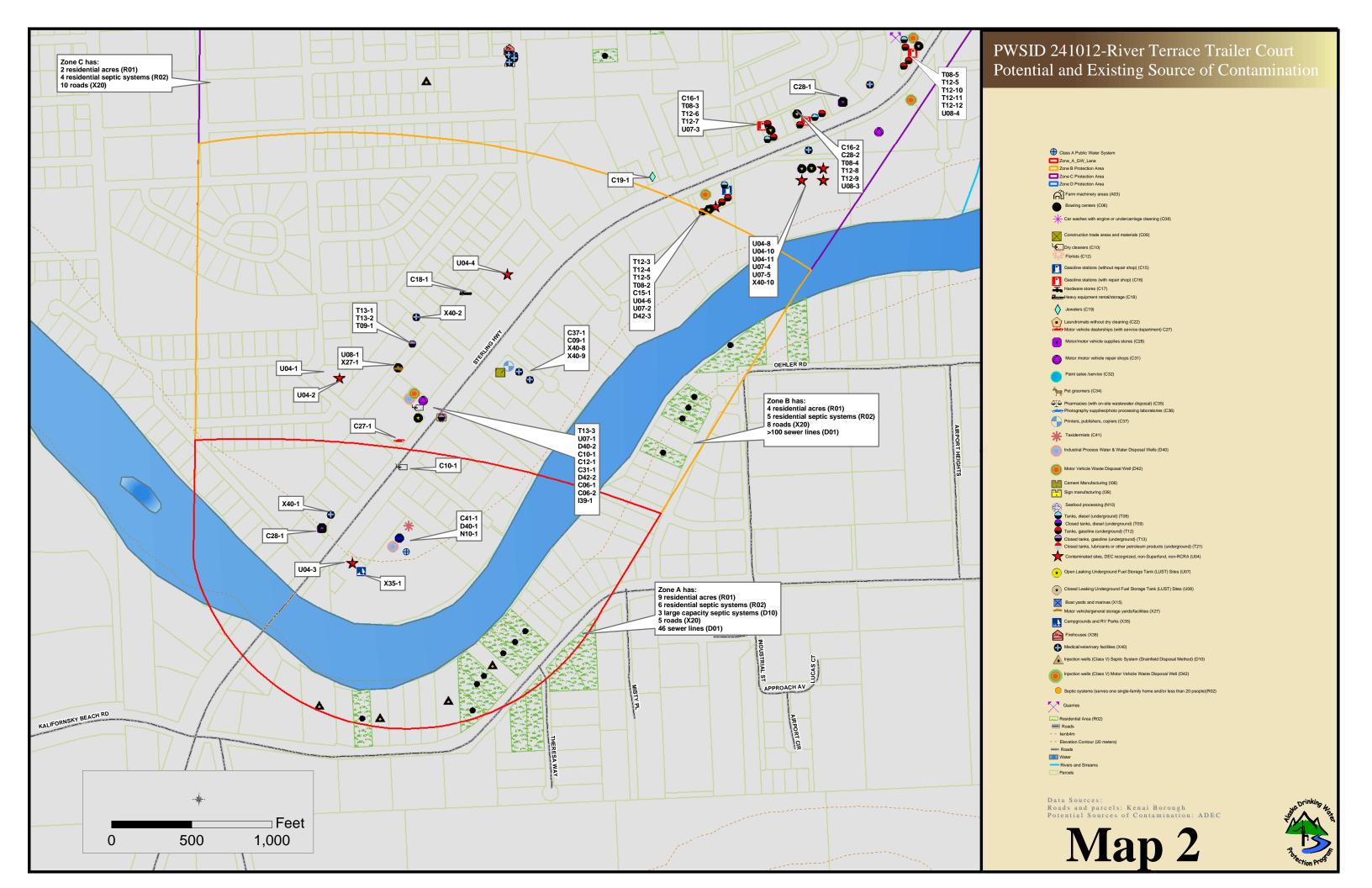
Contaminant Source Inventory and Risk Ranking for River Terrace Trailer Court PWSID 241012.001

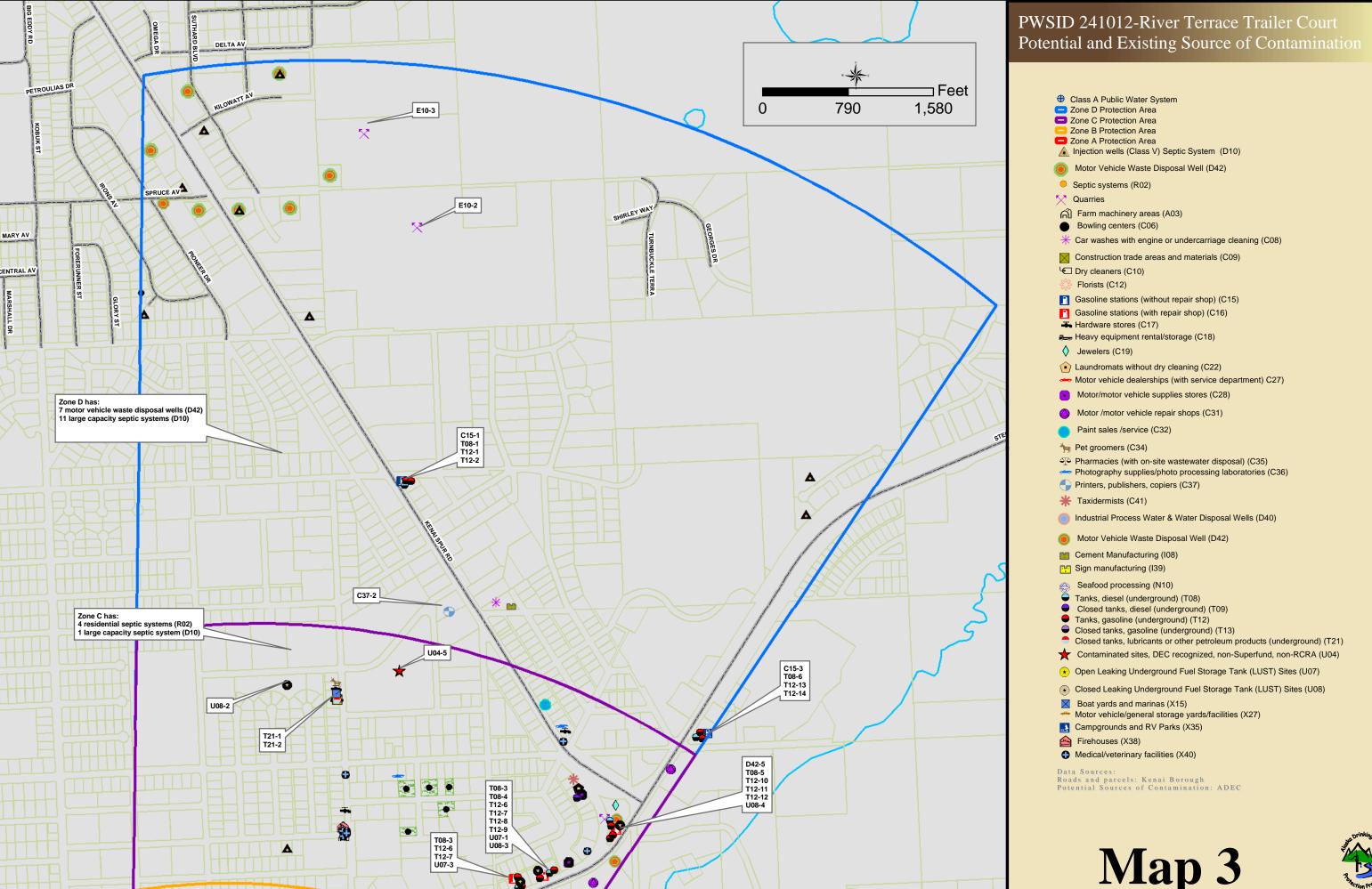
Sources of Other Organic Chemicals

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-5	С	Medium	2	44024 STERLING HWY
Residential Areas	R01	R01-3	C	Low	2	Zone C has 2 residential acres identified.
Septic systems (serves one single-family home)	R02	R02-12-15	C	Low	2	Zone C has 4 residential septics systems identified.
Boat yards and marinas	X15	X15-1	C	Low	3	255 N ASPEN DR
Highways and roads, paved (cement or asphalt)	X20	X20-14-26	C	Low	3	Zone C has 13 roads identified. Assumed to be paved
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	Medium	3	44710 SPRUCE AVE
Cement manufacturing	I08	I08-1	D	Very High	3	224 KENAI AVE

APPENDIX C

River Terrace RV Park and Trailer Court
Drinking Water Protection Area
and Potential and Existing Contaminant Sources
(Map 2 and 3)







APPENDIX D

Vulnerability Analysis for River Terrace RV Park and Trailer Court Public Drinking Water Source (Charts 1-14)

Chart 1. Susceptibility of the wellhead - River Terrace Trailer Court PWSID 241012.001 and 241012.002

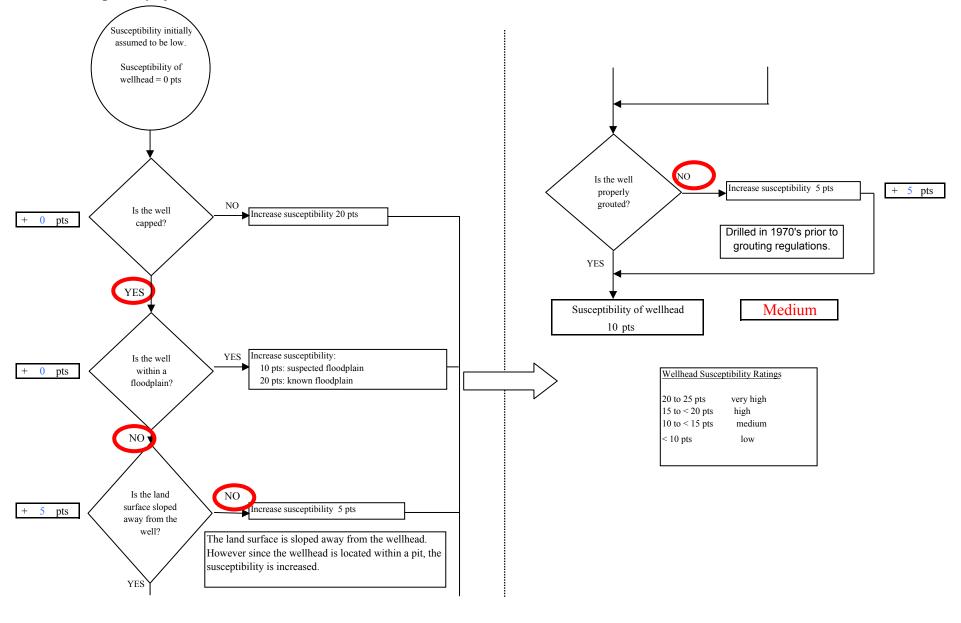


Chart 2. Susceptibility of the aquifer - River Terrace Trailer Court PWSID 241012.001 and 241012.002

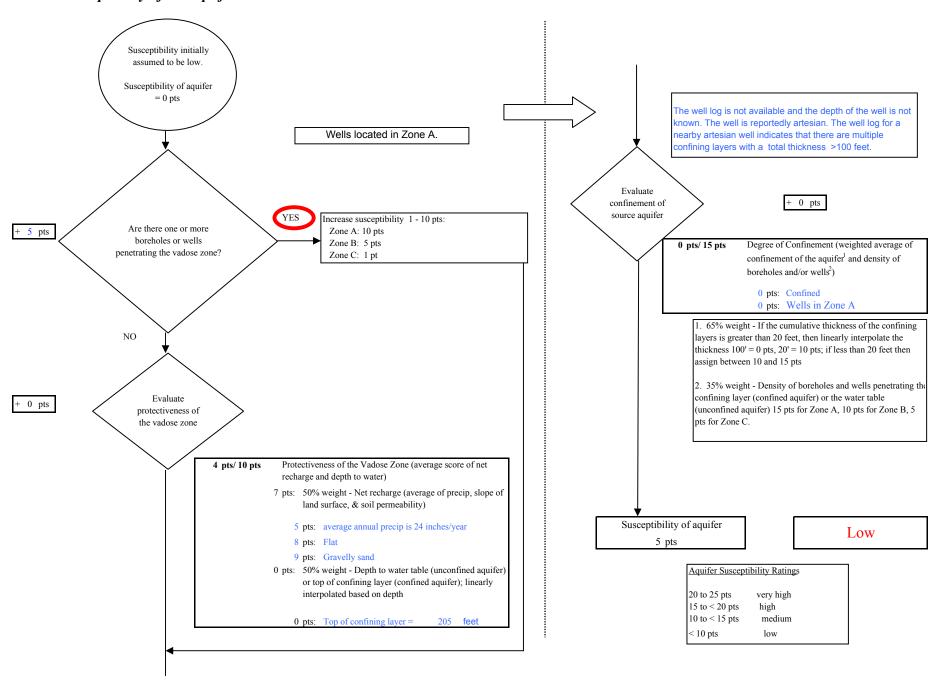
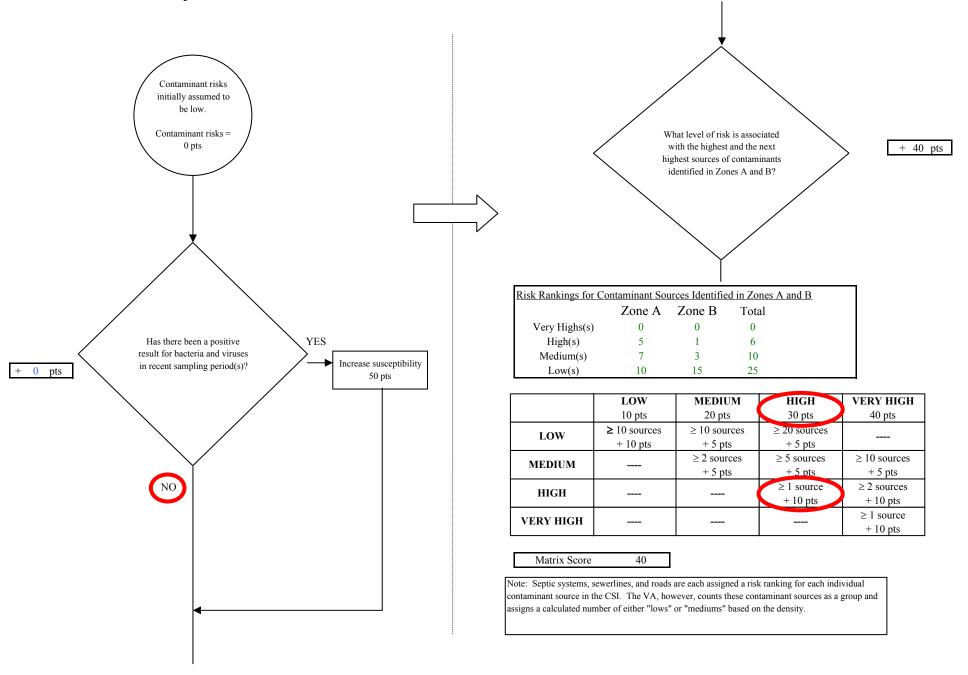
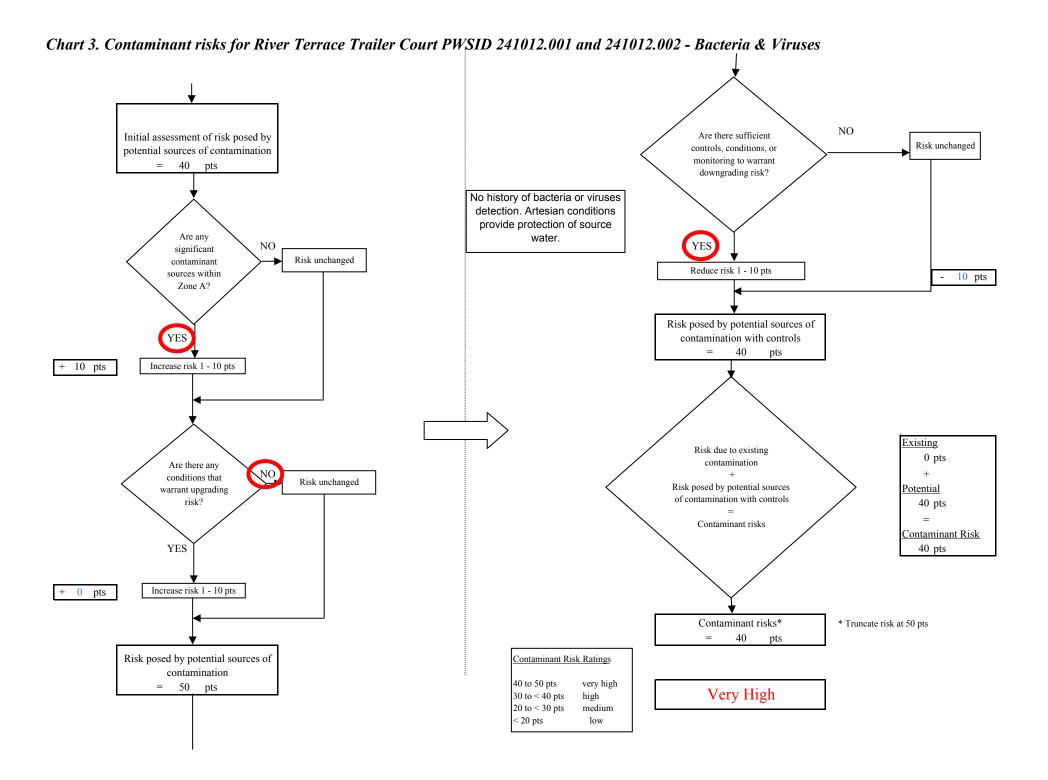
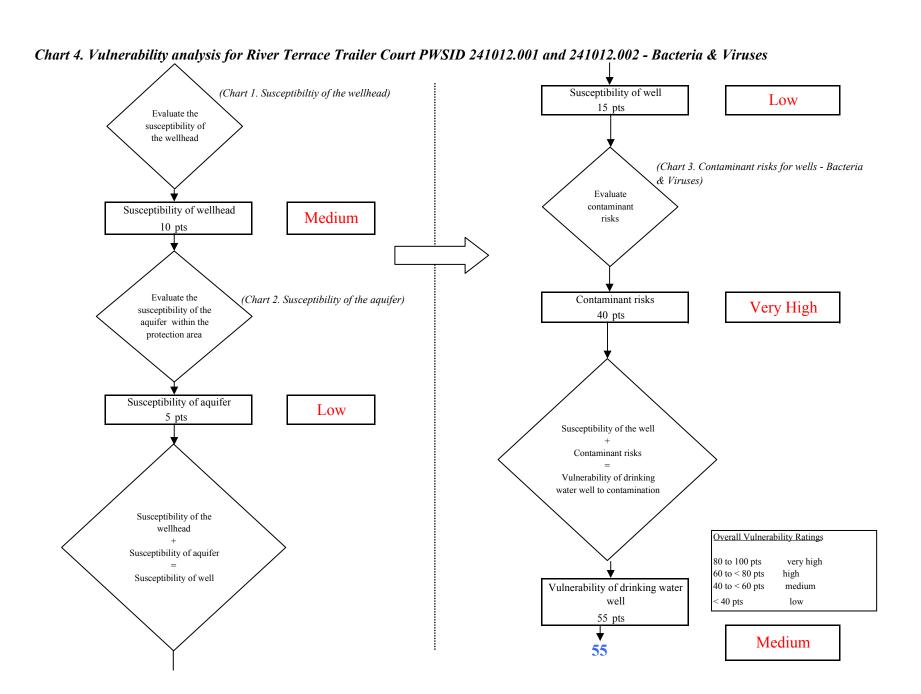


Chart 3. Contaminant risks for River Terrace Trailer Court PWSID 241012.001 and 241012.002 - Bacteria & Viruses





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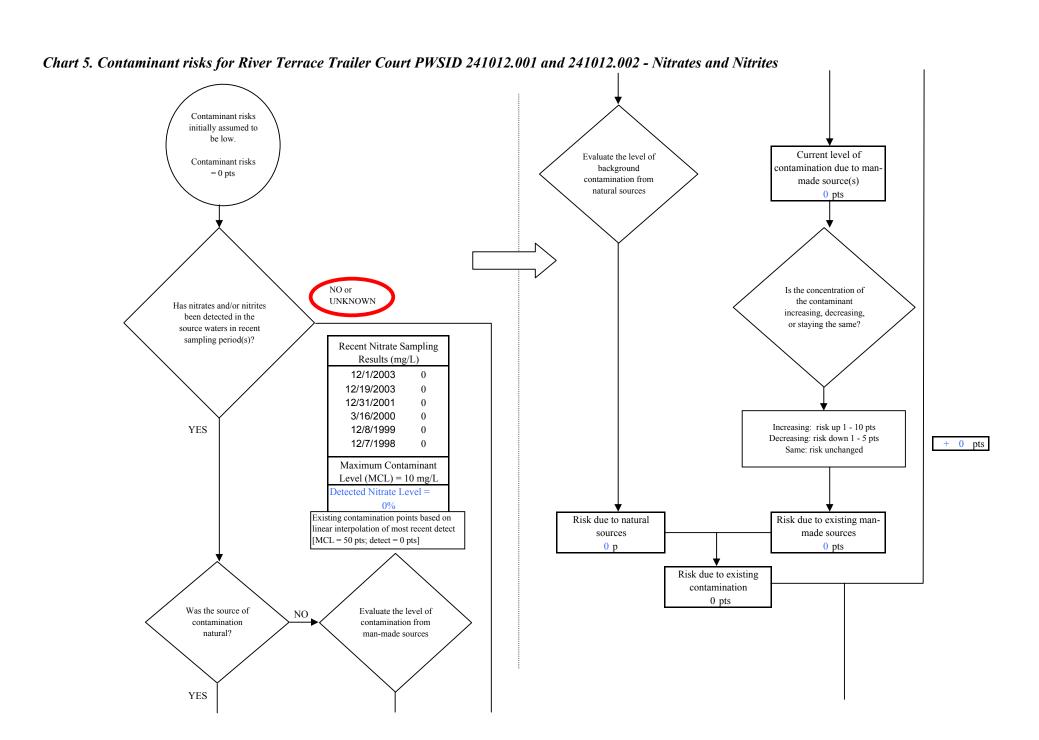
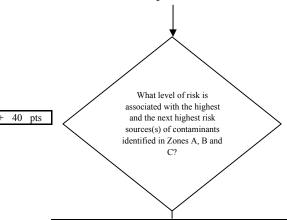


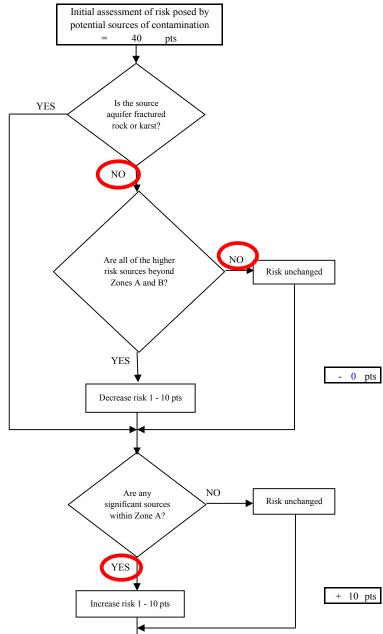
Chart 5. Contaminant risks for River Terrace Trailer Court PWSID 241012.001 and 241012.002 - Nitrates and Nitrites

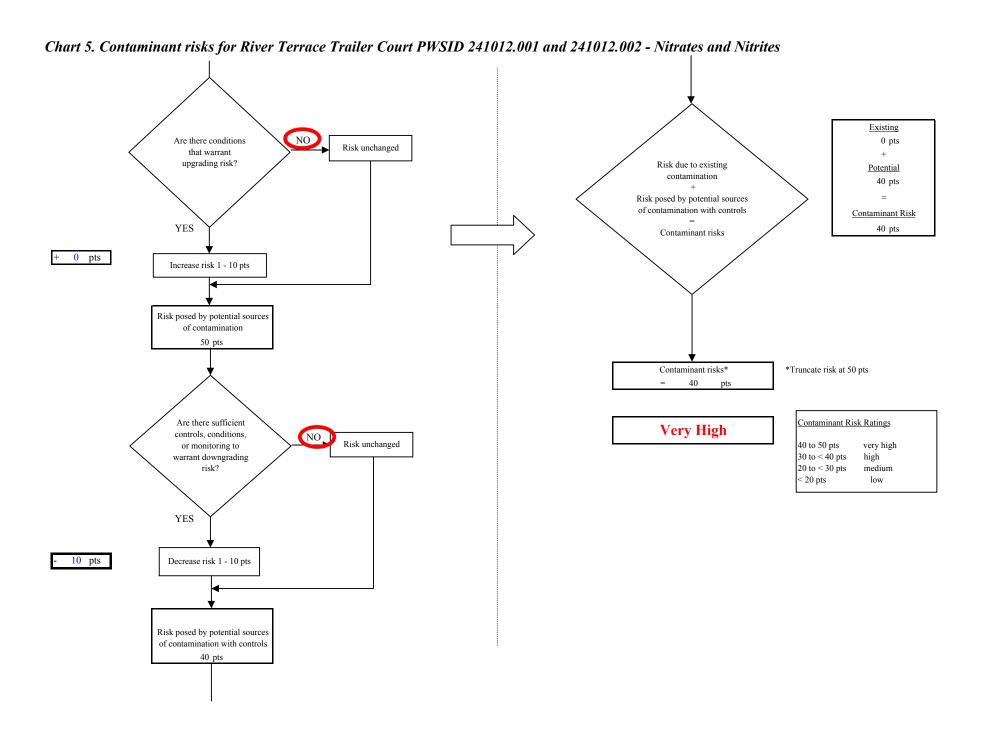


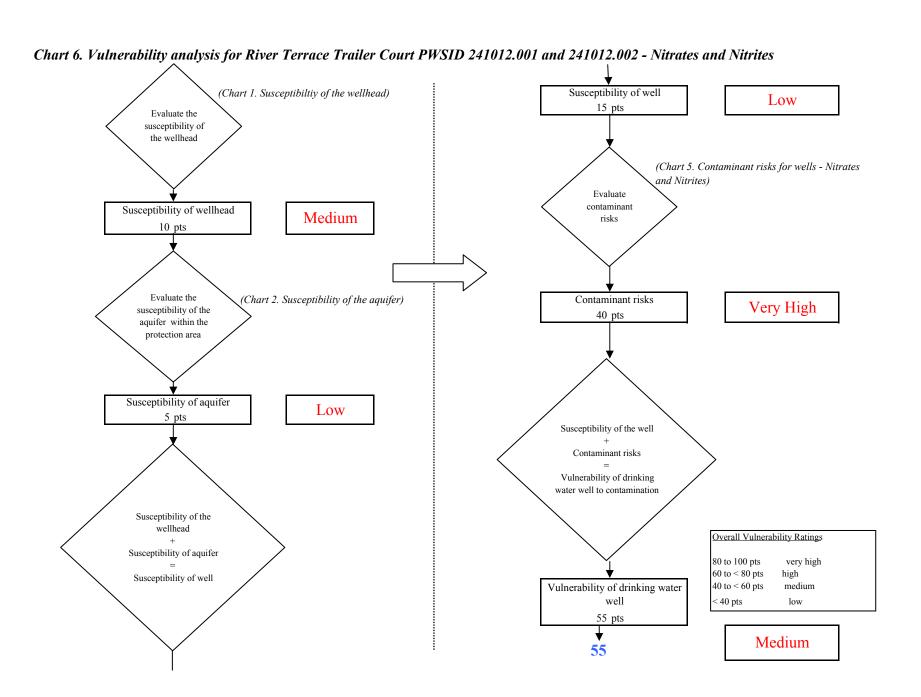
Risk Levels for Contaminant Sources identified in Zones A, B and C							
	Zone A	Zones B&C	Total				
Very Highs(s)	0	0	0				
High(s)	5	2	7				
Medium(s)	5	0	5				
Low(s)	12	43	55				

	LOW 10 pts	MEDIUM 20 pts	HIGH 30 pts	VERY HIGH 40 pts
LOW	≥ 10 sources + 10 pts	≥ 10 sources + 5 pts	≥ 20 sources + 5 pts	
MEDIUM		≥ 2 sources + 5 pts	≥ 5 sources + 5 pts	≥ 10 sources + 5 pts
HIGH			≥ 1 source + 10 pts	≥ 2 sources + 10 pts
VERY HIGH				≥ 1 source + 10 pts

Matrix Score 40







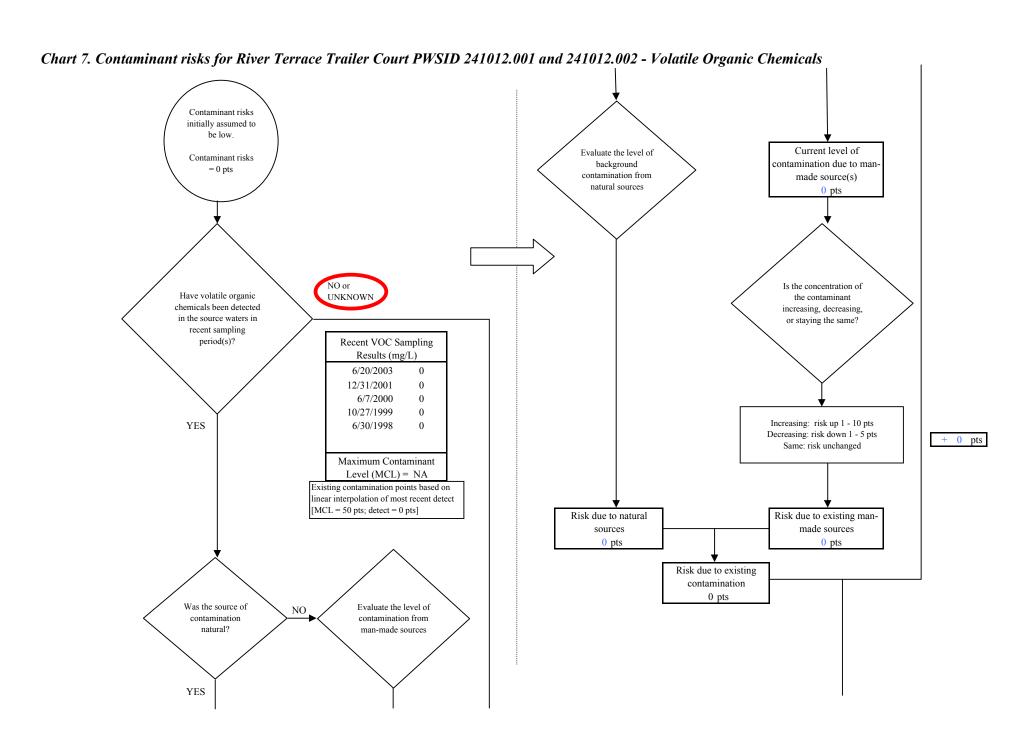
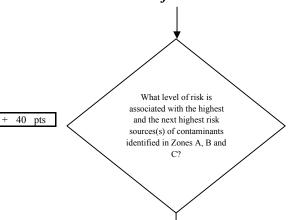


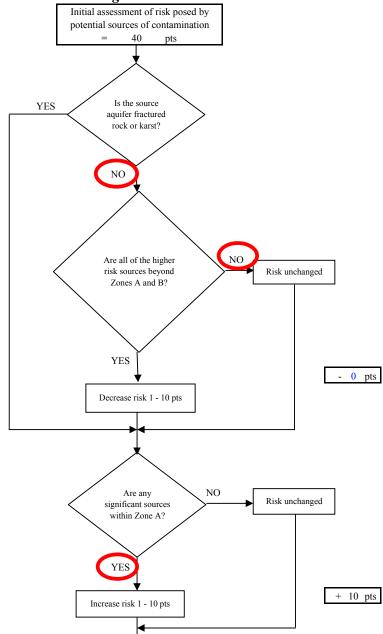
Chart 7. Contaminant risks for River Terrace Trailer Court PWSID 241012.001 and 241012.002 - Volatile Organic Chemicals

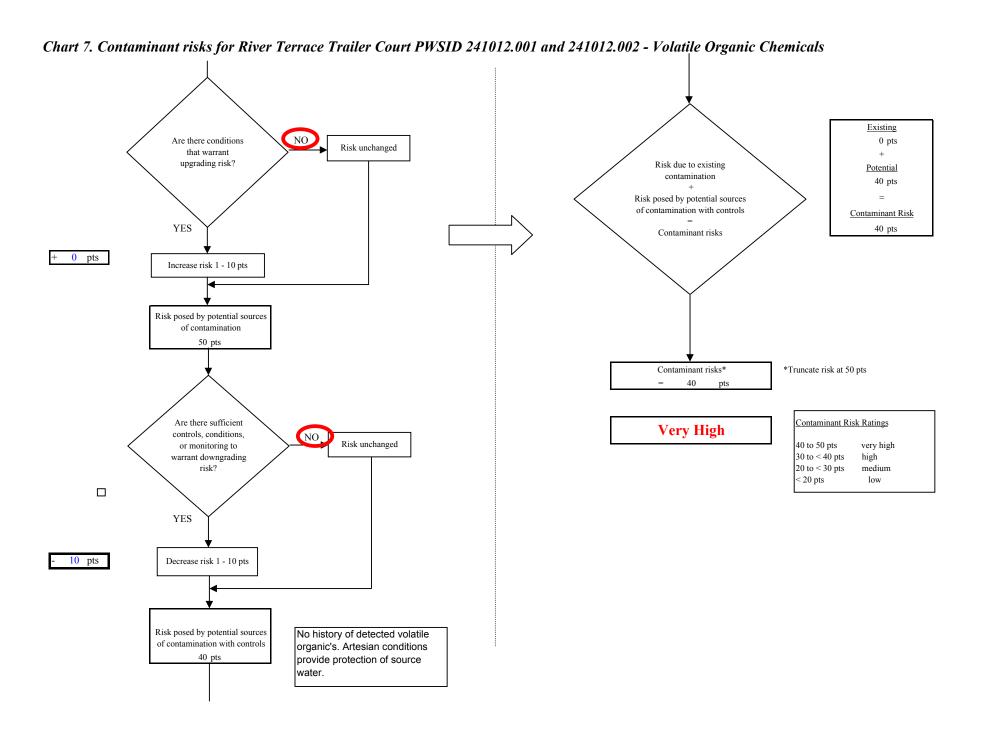


Risk Levels for Contaminant Sources identified in Zones A, B and C								
•								
	Zone A	Zones B&C	Total					
Very Highs(s)	0	0	0					
High(s)	3	28	31					
Medium(s)	1	17	18					
Low(s)	15	43	58					

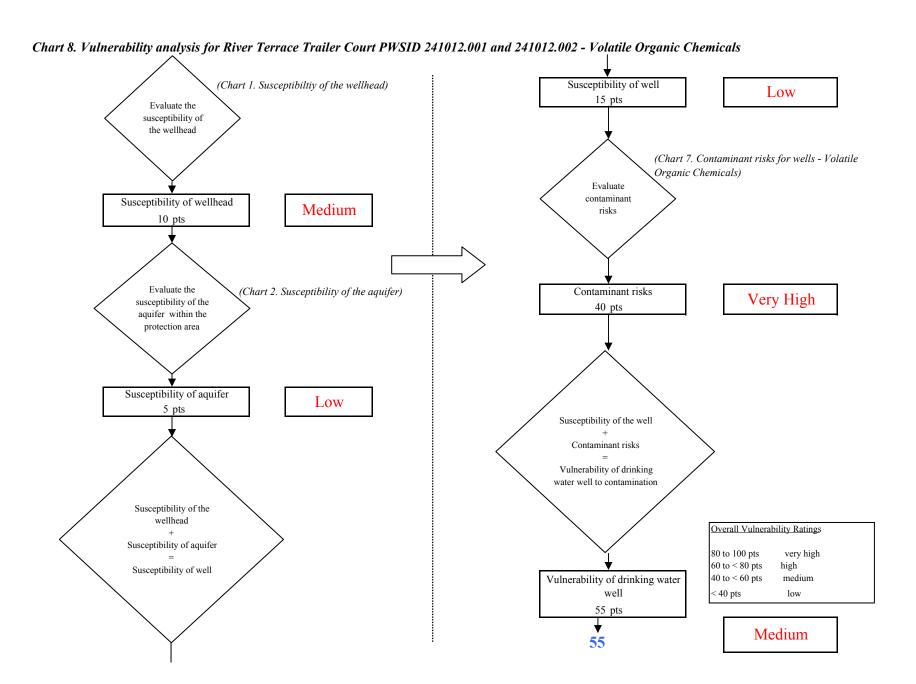
	LOW 10 pts	MEDIUM 20 pts	HIGH 30 pts	VERY HIGH 40 pts
LOW	≥ 10 sources + 10 pts	≥ 10 sources + 5 pts	≥ 20 sources + 5 pts	
MEDIUM		≥ 2 sources + 5 pts	≥ 5 sources + 5 pts	≥ 10 sources + 5 pts
HIGH			≥ 1 source + 10 pts	≥ 2 sources + 10 pts
VERY HIGH				≥ 1 source + 10 pts

Matrix Score 40





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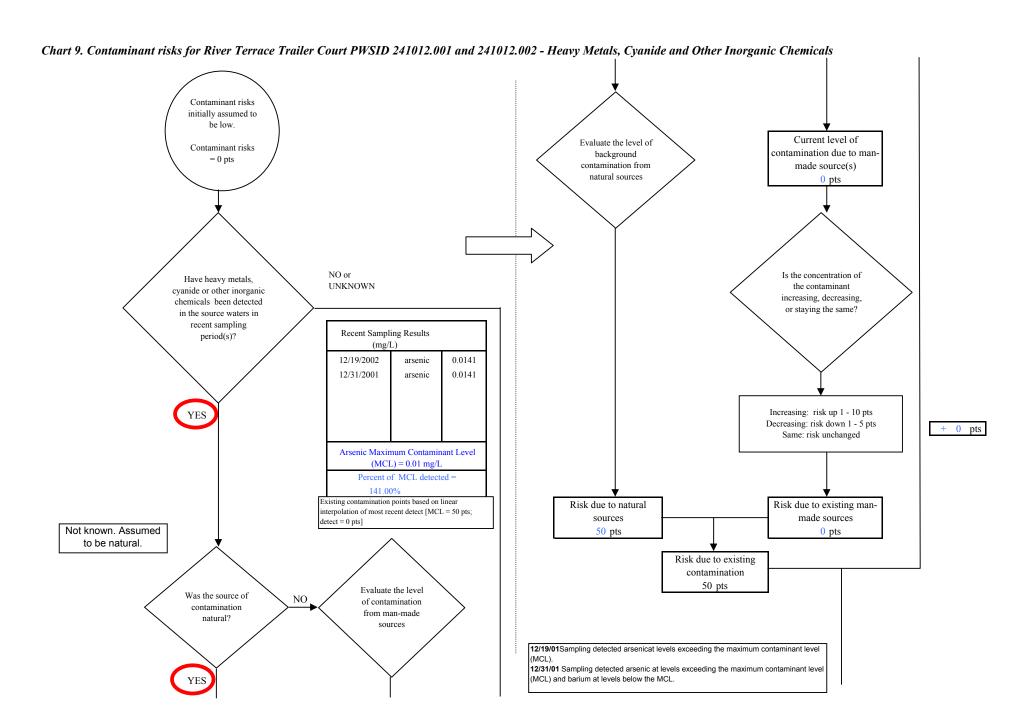
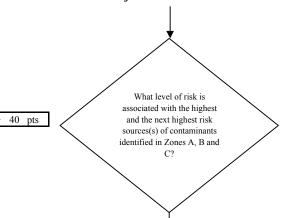


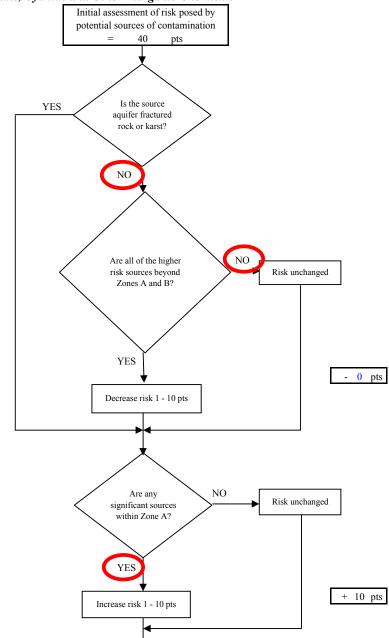
Chart 9. Contaminant risks for River Terrace Trailer Court PWSID 241012.001 and 241012.002 - Heavy Metals, Cyanide and Other Inorganic Chemicals

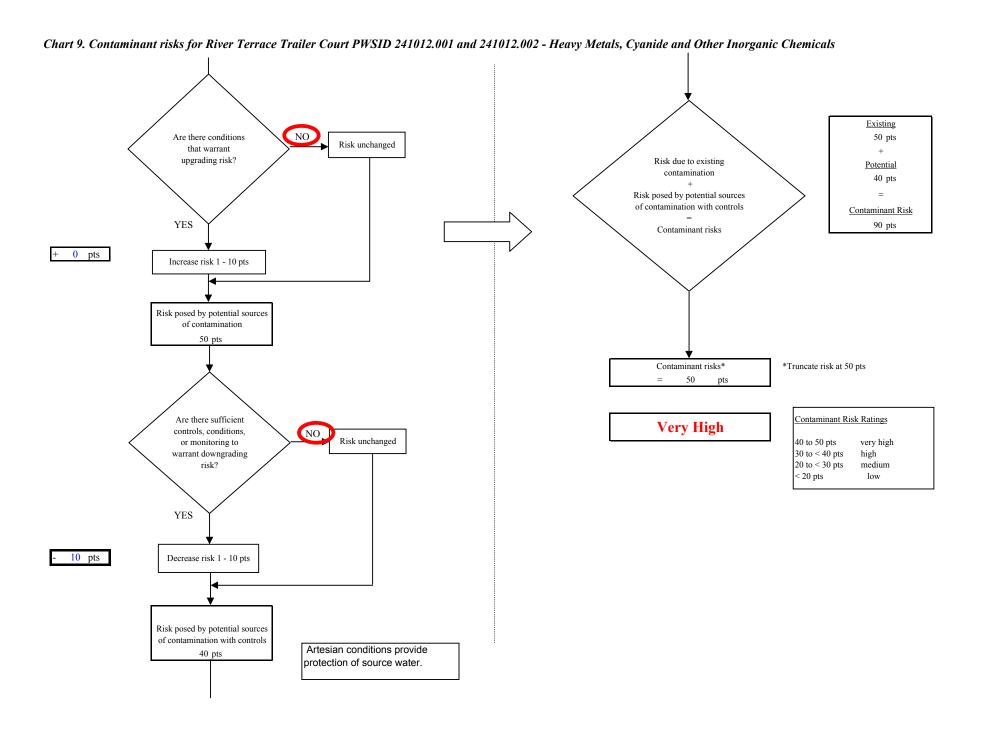


Risk Levels for Contaminant Sources identified in Zones A, B and C							
Zone A Zones B&C Total							
Very Highs(s)	0	0	0				
High(s)	1	7	8				
Medium(s)	0	19	19				
Low(s)	12	42	54				

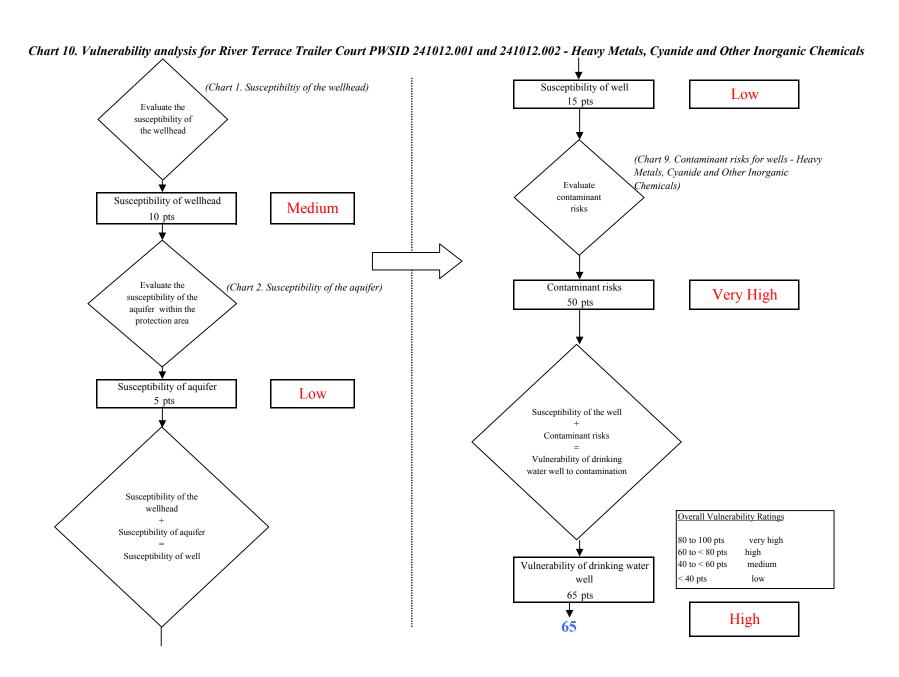
	LOW 10 pts	MEDIUM 20 pts	HIGH 30 pts	VERY HIGH 40 pts
LOW	≥ 10 sources + 10 pts	≥ 10 sources + 5 pts	≥ 20 sources + 5 pts	
MEDIUM		≥ 2 sources + 5 pts	≥ 5 sources + 5 pts	≥ 10 sources + 5 pts
HIGH			≥ 1 source + 10 pts	≥ 2 sources + 10 pts
VERY HIGH				≥ 1 source + 10 pts

Matrix Score	40





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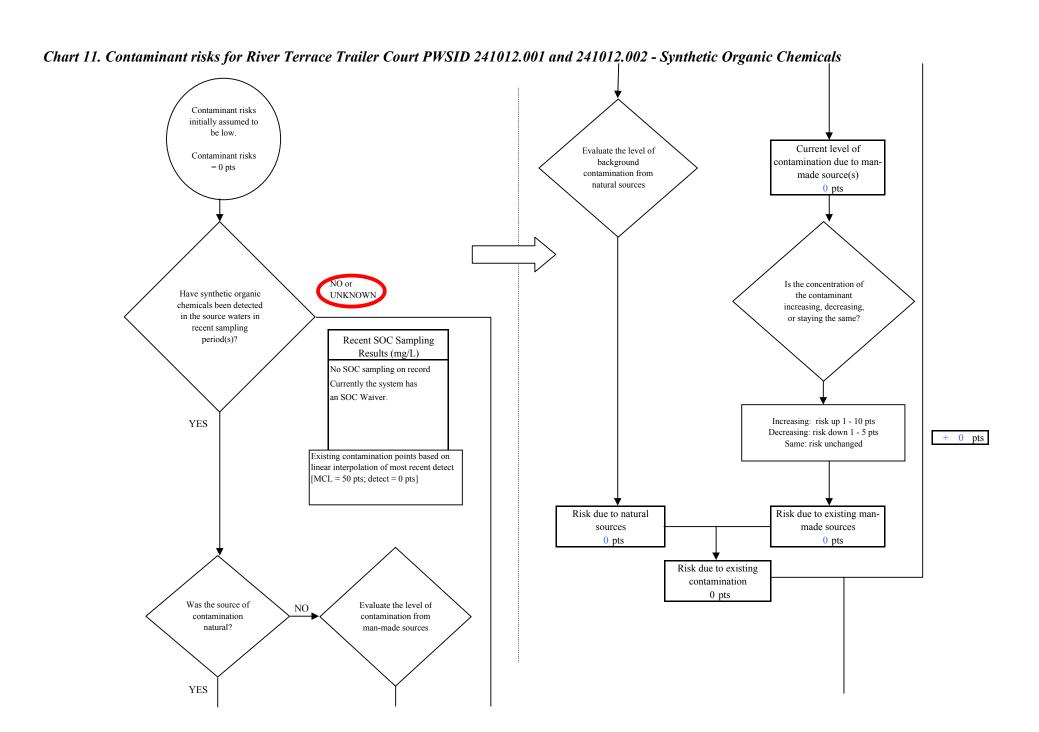
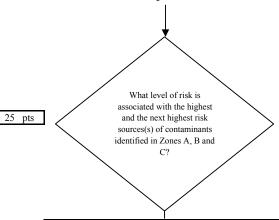


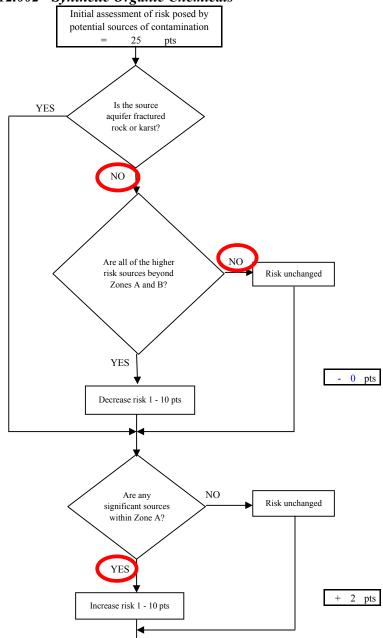
Chart 11. Contaminant risks for River Terrace Trailer Court PWSID 241012.001 and 241012.002 - Synthetic Organic Chemicals

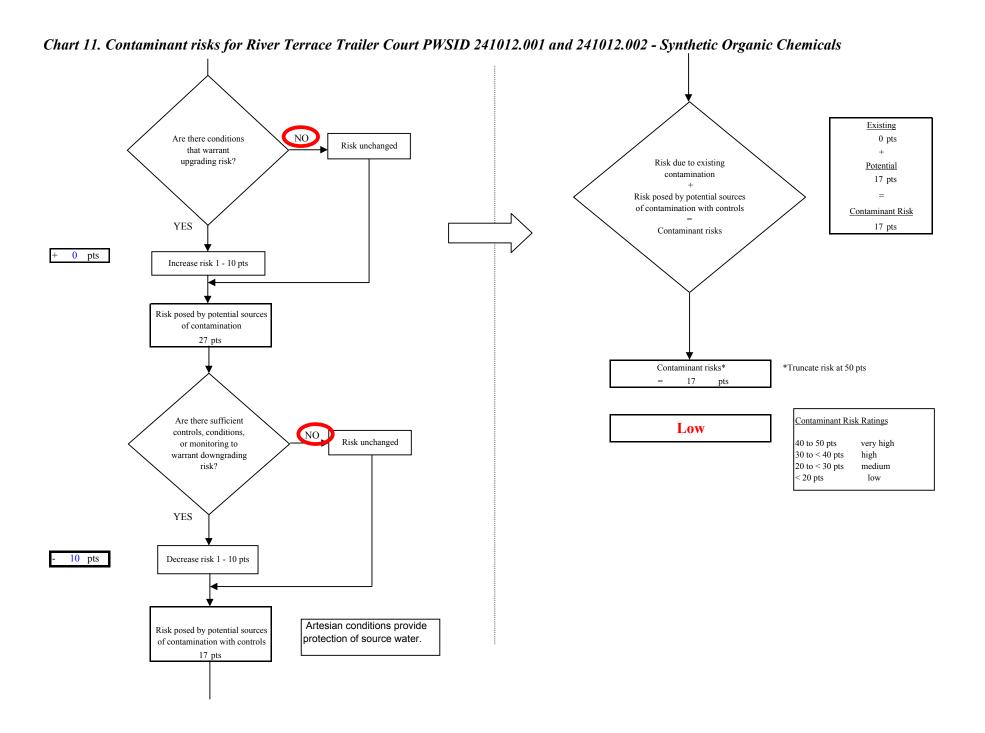


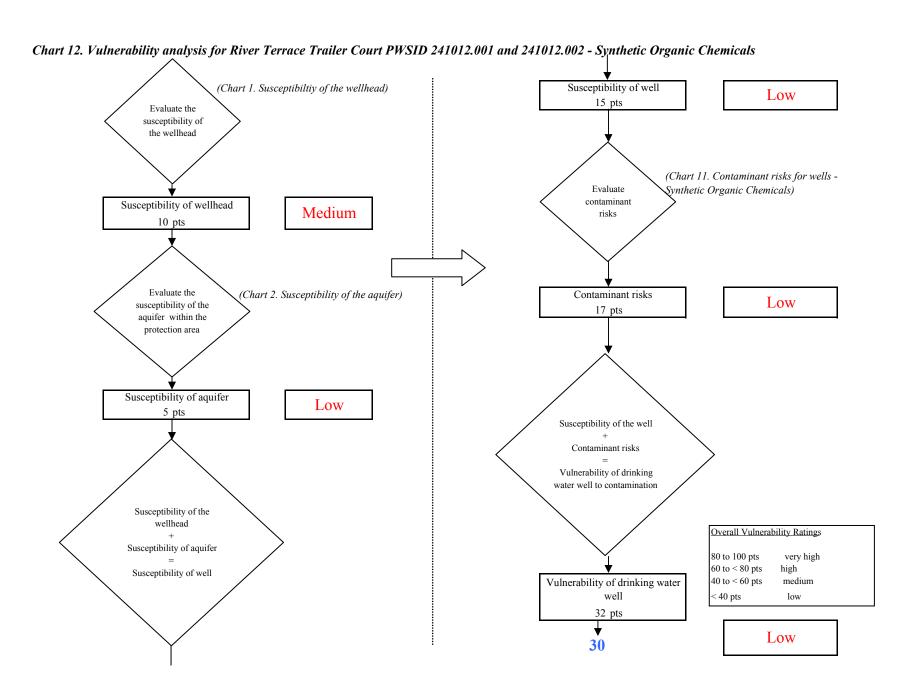
Risk Levels for Contaminant Sources identified in Zones A, B and C				
	Zone A	Zones B&C	Total	
Very Highs(s)	0	0	0	
High(s)	0	0	0	
Medium(s)	0	1	1	
Low(s)	8	26	34	

	LOW 10 pts	MEDIUM 20 pts	HIGH 30 pts	VERY HIGH 40 pts
LOW	≥ 10 sources + 10 pts	≥ 10 sources + 5 pts	≥ 20 sources + 5 pts	
MEDIUM		≥ 2 sources + 5 pts	≥ 5 sources + 5 pts	≥ 10 sources + 5 pts
HIGH			≥ 1 source + 10 pts	≥ 2 sources + 10 pts
VERY HIGH				≥ 1 source + 10 pts

Matrix Score 25







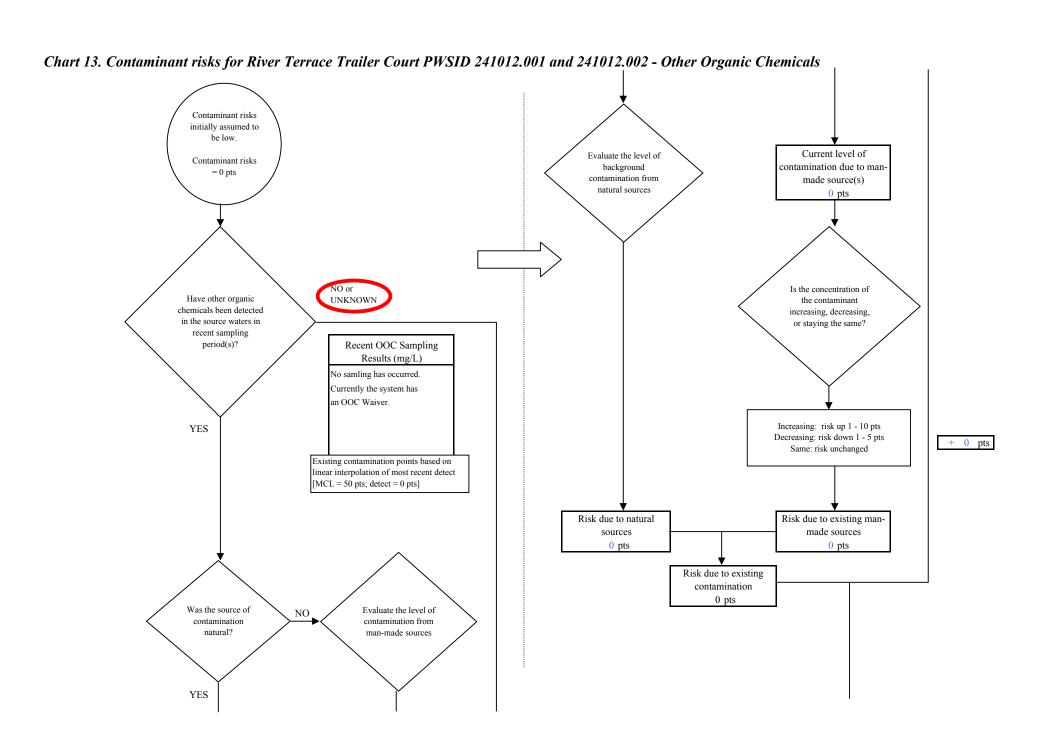
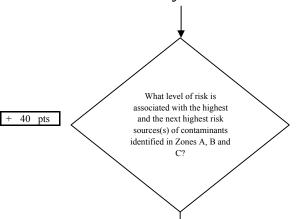


Chart 13. Contaminant risks for River Terrace Trailer Court PWSID 241012.001 and 241012.002 - Other Organic Chemicals



Risk Levels for Contaminant Sources identified in Zones A, B and C			
	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	1	1	2
Medium(s)	0	13	13
Low(s)	8	15	23

	LOW 10 pts	MEDIUM 20 pts	HIGH 30 pts	VERY HIGH 40 pts
LOW	≥ 10 sources + 10 pts	≥ 10 sources + 5 pts	≥ 20 sources + 5 pts	
MEDIUM		≥ 2 sources + 5 pts	≥ 5 sources + 5 pts	≥ 10 sources + 5 pts
HIGH			≥ 1 source + 10 pts	≥ 2 sources + 10 pts
VERY HIGH				≥ 1 source + 10 pts

Matrix Score 40

