Source Water Assessment for Four Seasons Trailer Court Anchorage, Alaska

A Hydrogeologic Susceptibility and Vulnerability Analysis

DRINKING WATER PROTECTION PROGRAM REPORT 153

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Source Water Assessment for Four Seasons Trailer Court's Source of Public Drinking Water, Anchorage, Alaska

A Hydrogeologic Susceptibility and Vulnerability Analysis

By Heather A. Hammond

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EXECUTIVE SUMMARY

The Public Water System for Four Seasons Trailer Court is a Class A (community) water system consisting of one well in the Anchorage area. Identified potential and current sources of contaminants for Four Seasons Trailer Court include: domestic wastewater sewer lines, residential septic systems, highways and roads, activities associated with parks and recreation trails, approximately 270 acres of residential area, hardware stores and appliance repair shops, a car wash providing engine and undercarriage cleaning, construction trade areas, 5 ADEC recognized contaminated sites (corrective action plans initiated by ADEC), underground fuel storage tanks associated with gasoline stations, and a class V motor vehicle waste disposal injection well. These identified potential and existing sources of contamination are considered sources of bacteria and viruses, nitrates and/or nitrites, volatile organic chemicals, heavy metals, synthetic organic chemicals, and other organic chemicals. Overall, the public water source for Four Seasons Trailer Court received a vulnerability rating of **Medium** for bacteria and viruses, nitrates and/or nitrites, and volatile organic chemicals; **Low** for heavy metals, synthetic organic chemicals, and other organic chemicals.

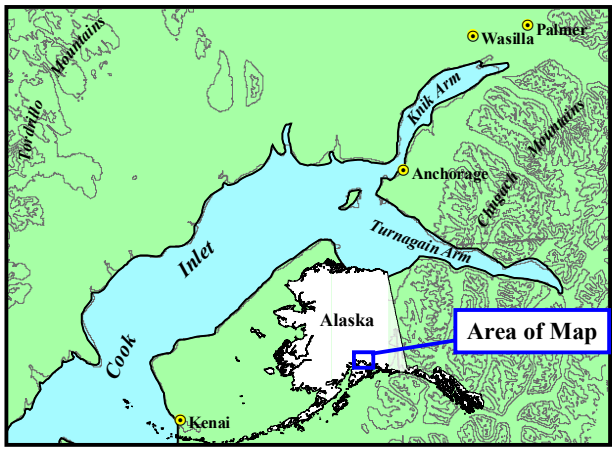

Figure 1. Index map showing the location of Anchorage, Alaska

INTRODUCTION

The purpose of this environmental assessment is to provide public water system owners and/or operators, communities, and local governments with information they can use to preserve the quality of Alaska's public drinking water supplies. This assessment was completed for Four Seasons Trailer Court's source of public drinking water. This water system consists of one well in the Anchorage area (see Figure 1). This assessment, known under the Alaska Drinking Water Protection Program as the *Source Water Assessment*, has combined a review of the natural hydrogeologic sensitivity with potential and existing contaminant risks to arrive at an overall vulnerability of the drinking water source to contamination. This assessment has been completed as a basis for local voluntary protection efforts and to assist agencies in their efforts to reduce risk to this public drinking water supply.

DESCRIPTION OF THE ANCHORAGE AREA, ALASKA

Location

Anchorage, located in southcentral Alaska, encompasses 1,698 square miles of land and 264 square miles of water. The area containing a majority of the urban development, commonly referred to as the Anchorage Bowl, encompasses approximately 180 square miles [*Partick, Brabets, and Glass, 1989*] and envelopes the low lands of the area. This area is bounded on the east by the Chugach Mountains and the north, west, and south by the Knik and Turnagain Arms of Cook Inlet (Figure 1). In recent times, urban development has extended eastward along the flanks of the Chugach Mountains. This area, known locally as the Anchorage Hillside, contains development at elevations exceeding 3,700 feet in elevation above sea level.

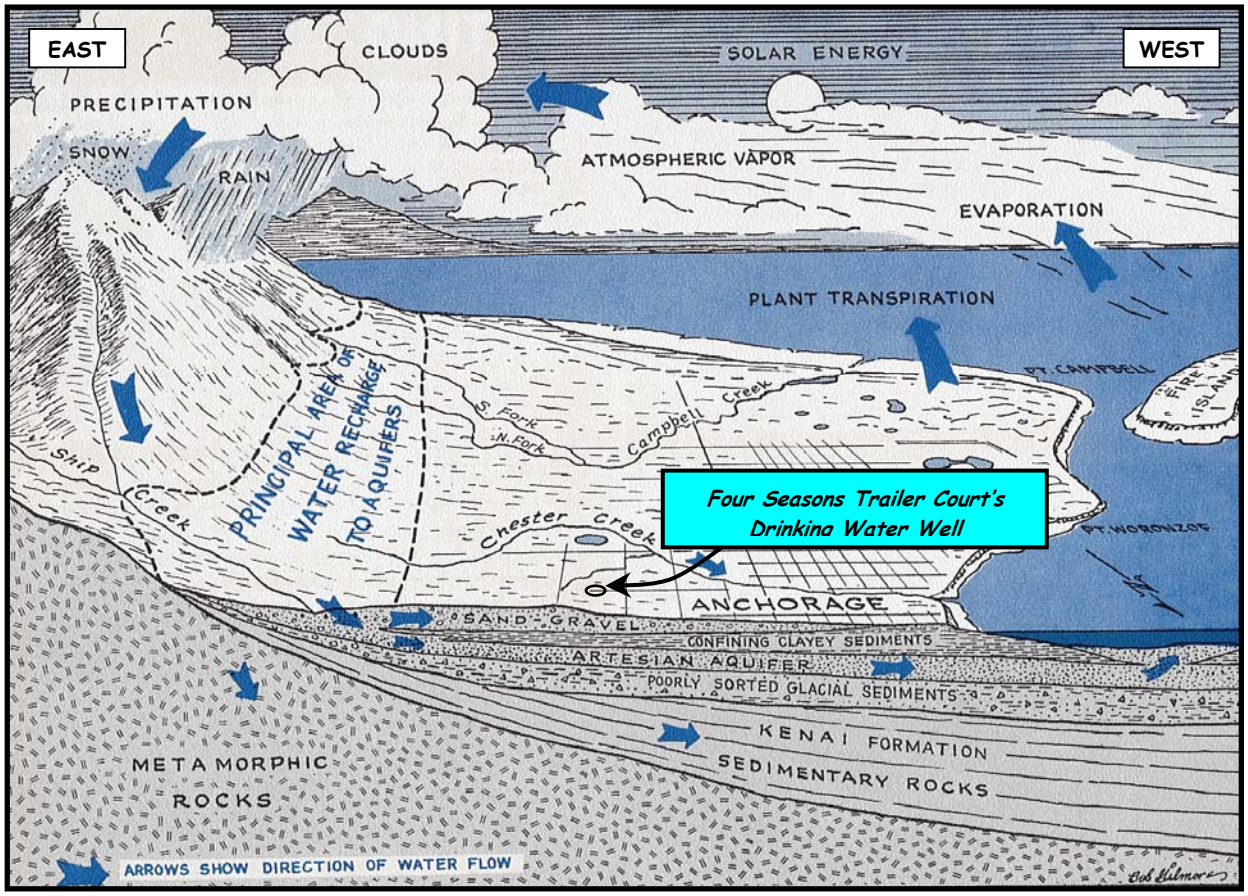

Figure 2. Generalized hydrologic cycle in the Anchorage area [*Barnwell, George, Dearborn,Weeks, and Zenone*, 1972].

Climate

The Anchorage area climate is somewhat transitional in that it does not experience large daily and annual temperature fluctuations like those experienced in the interior of Alaska nor does it experience high amounts of precipitation typified by gulf coast regions. Mean annual precipitation at the Anchorage International Airport is approximately 16 inches per year. On average, Anchorage receives a total snow accumulation of 69 inches per year. Precipitation generally increases inland toward the Chugach Mountains where annual precipitation may exceed 160 inches per year [*Barnwell, George, Dearborn, Weeks, and Zenone*, 1972]. Mean daily temperature ranges from 65^{o} F during July to 8^{o} F in January [*Western Regional Climate Center*, 2000].

Physiography and Groundwater Conditions

Surface elevations in the Anchorage area range from sea level at Knik and Turnagain Arms to well over 5,000 feet in the peaks that bound the area. Glacial moraine and outwash deposits primarily mantle the surface of the Anchorage Bowl.
The backbone of the Chugach Mountains is composed primarily of metamorphic marine and volcanic rocks (bedrock). These high peaks that bound Anchorage's east-side are flanked with colluvium or slope deposits. These slope deposits eventually grade into the glacial and stream deposits at lower elevations in the Anchorage Bowl.

In the Anchorage area, two principal groundwater flow systems or aquifers exist (see Figure 2). The upper unconfined aquifer or water-table aquifer is separated from a lower confined aquifer system by layers of silty, clayey glacially derived sediments (confining layer) [*Ulery and Updike*, 1983]. The lower confined aquifer system consists of a series of hydrologically interconnected layers and lenses of gravel, sand and silt that, collectively, form the confined aquifer. The confining layer ranges from 0 to 270 feet thick throughout the Anchorage area and generally thins with increasing distance from Cook Inlet, thus pinching out at the mountain front [*Patrick, Brabets, and Glass*, 1989].

Water enters or recharges these two aquifer systems in several different ways. Along the front of the Chugach

Mountains, groundwater seeps from fractures in bedrock into the sediments. At these higher elevations, rain and snowmelt also enters the sediments. This area along the mountain front is considered the principal recharge area for wells in the Anchorage area. Precipitation in the low lands may also percolate directly into the ground. Lastly, aquifers may also be recharged by streams where surface water percolates into surrounding permeable sediments (losing reaches of streams). Groundwater flow in the confined aquifer is generally east to west from the mountain front toward Cook Inlet and Turnagain Arm, except in areas where the direction of flow is influenced by large municipal or industrial production wells. The direction of groundwater flow in the upper unconfined aquifer is more variable due to the influence from surfacial topography as well as its close connection with surface water bodies.

FOUR SEASONS TRAILER COURT'S PUBLIC DRINKING WATER SYSTEM

Four Seasons Trailer Court's public water system is a Class A (community) water system, which is owned and operated by Weinder Investment Services, Inc. of Anchorage. The system consists of one well, which is located within Four Seasons Trailer Park between Elmwood Street and Driftwood Street at an elevation of approximately 250 feet above sea level (see Figure 3).

According to the most recent Synthetic Organic Chemicals and/or Other Organic Chemicals Monitoring Waiver Application (2/23/98) the well sits on a gravel pad and is protected by a pumphouse. The land surface slopes away from the well and according to the most recent Sanitary Survey (09/12/96) the well was installed properly, with a sanitary seal, which may provide protection against contaminants from entering the source waters at the well casing. There is no well log available for Four Seasons Trailer Court and it is unknown whether the well was properly grouted at the time of installation. It is suspected that the well was installed during the late 1960's or early 1970's. Proper grouting provides added protection against contaminants travelling along the well casing and into source waters.

The system is capable of producing 40,000 gallons of

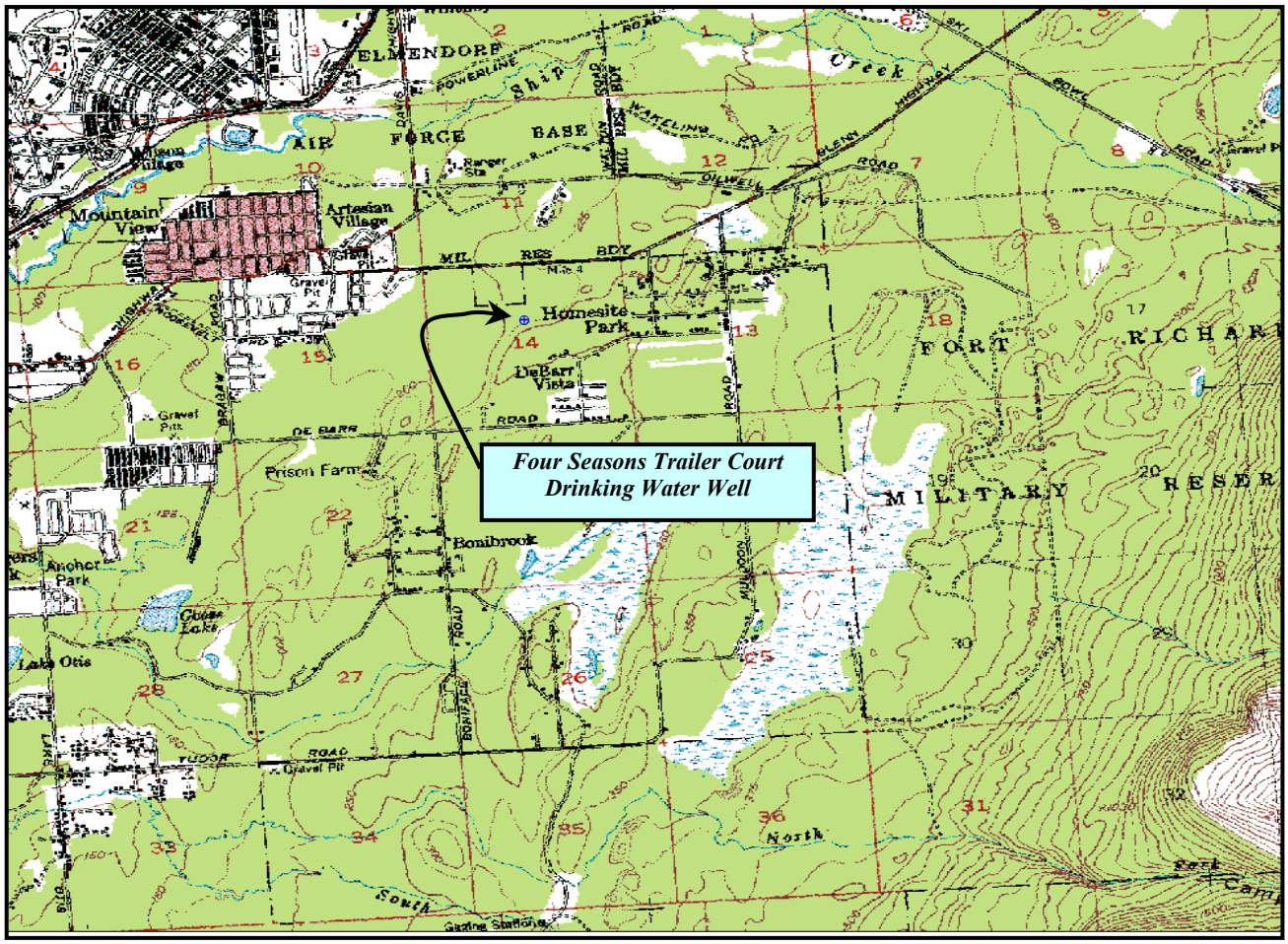

Figure 3. Map showing the location of the drinking water source for Four Seasons Trailer Court [Base: USGS Anchorage A8].

water per day with a pump capacity of 130 gallons per minute. This system operates year round and serves 620 residents and 5 non-residents through 367 service connections.

ASSESSMENT AND PROTECTION AREA FOR FOUR SEASONS TRAILER COURT'S DRINKING WATER SOURCE

The Drinking Water Protection and Assessment Area that has been established for Four Seasons Trailer Court's source of drinking water is the area that is most sensitive to contamination. This area has served as a basis for assessing the risk of the drinking water source to contamination. The zones around the drinking water source outline the most critical area for the preservation of the quality of the drinking water for this source. For simplicity, this area will be known as your Drinking Water Protection Area and will serve as the area of focus for voluntary protection efforts.

Conceptually, groundwater enters the aquifer systems along the front range of the Chugach Mountains (Figure 2) and flows toward Cook Inlet. An analytical calculation was used to calculate the size and shape of the area that contributes water to the well. The input parameters describing the attributes of the aquifer in this calculation were adopted from the U.S. Geological Survey [*Patrick, Brabets, and Glass, 1989*]. This analytical calculation was used as a guide as the first step in establishing the protection area for each public drinking water source in Anchorage. Additional methods were further employed to take into account any uncertainties in groundwater flow and aquifer characteristics to arrive at meaningful and conservative protection areas with respect to public health (Please refer to the Guidance Manual for Class A Public Water Systems for additional information).

The Drinking Water Protection Areas established for wells by the Alaska Department of Environmental Conservation are separated into zones. These zones correspond to a time-of-travel. Time-of-travel is the time required for water to move in the saturated zone of the ground from a specific point to the well. The Drinking Water Protection Area for Four Seasons Trailer Court contains four zones, Zone A through Zone D (See Map 1 in Appendix A). Zone A corresponds to the area between the well and the distance equal to ¼ of the distance of the 2-year time-of-travel. Depending on where a contaminant source is located within Zone A, travel time for a contaminant to the well may be on the order of several days to several hours. Zone A also extends downgradient from the well to take into account the area of the aquifer that is influenced by pumping of the well.
Zone B corresponds to a time-of-travel of less than two years. Zones C and D correspond to those areas between 5 years and 10 years time-of-travel, respectively.

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 Drinking Water Protection Area for Four Seasons Trailer Court. This survey was completed through a search of agency records and other publicly available information. Potential sources of contamination to drinking water supplies cover 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 this assessment and 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.

Maps 2 through Map 5 in Appendix C depict the Contaminant Source Inventory for Four Seasons Trailer Court. Table 1 in Appendix B lists the inventoried potential sources of contamination within Zones A through D. Below is a summary of the contaminant sources inventoried within Four Seasons Trailer Court's protection areas:

- domestic wastewater sewer lines;
- residential septic systems;
- highways and roads;
- activities associated with parks and recreation trails;
- approximately 270 acres of residential area;
- hardware stores and appliance repair shops;
- a car wash providing engine and/or undercarriage cleaning;
- construction trade areas;
- 5 ADEC recognized contaminated sites (corrective action plans initiated);
- underground fuel storage tanks associated with

- gasoline stations;
- and a class V motor vehicle waste disposal well.

These potential and existing contaminant sources present risk for all six categories of drinking water contaminants for Four Seasons Trailer Court's source of public drinking water.

RANKING OF CONTAMINANT RISKS

Potential and existing sources of contamination have been identified, sorted, and ranked 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. Contaminant risks are further a function of the number and density of those types of contaminant sources as well as the proximity of those sources to the public drinking water well.

VULNERABILITY OF FOUR SEASONS TRAILER COURT'S DRINKING WATER SOURCE

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

- natural susceptibility; and
- contaminant risks.

Each of the six categories of drinking water contaminants have been analyzed and an overall vulnerability score of 0 to 100 ultimately assigned:

Natural Susceptibility (0 – 50 points)

+

Contaminant Risks (0 – 50 points)

=

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

A score for the Natural Susceptibility is achieved by analyzing the properties of the well and the aquifer.

Susceptibility of the Wellhead (0 – 25 Points)
+
Susceptibility of the Aquifer (0 – 25 Points)

= Natural Susceptibility (Susceptibility of the Well)
(0 – 50 Points)

There is no well log available for Four Seasons Trailer Court's well. Therefore, geologic information presented in this report was gathered from well logs for wells within a ½ mile radius of Four Seasons Trailer Court's well. Based on the aquifer characteristics from the information gathered it is suspected that the well serving Four Seasons Trailer Court was completed in a confining aquifer. The depth to the top of the confining unit is approximately 69 feet below the land surface. The thickness of the confining layer is suspected to be approximately 25 feet and composed of brown clayey silt and blue clay with intermittent layers of packed sand and gravel. This confining layer may provide a protective barrier against the movement of contaminants in the subsurface. However, near the base of the Chugach Mountains, these clay layers tend to be discontinuous and thin toward the mountains. Therefore, contaminants that enter the subsurface near the base of the mountains may enter the confined aquifer uninhibited by the absence of any protective layer.

Combining the susceptibility of the wellhead and the aquifer to contamination leads to a score (0 – 50 points) and rating of overall Susceptibility of the well to contamination (See Appendix D). Table 1 depicts the overall Susceptibility score and rating for Four Seasons Trailer Court's source of public drinking water.

Table 1. Natural Susceptibility - Susceptibility of the Wellhead and Aquifer to Contamination

	Score	Rating
Susceptibility of the Wellhead	5	Low
Susceptibility of the Aquifer	10	Medium
Natural Susceptibility	15	Low

Contaminant risks to a drinking water source depend on the type, number or density, and distribution of contaminant sources. A score (0 – 50 points) and rating of Contaminant Risks (See Appendix D) is assigned based on the findings of the Contaminant Source Inventory (See Appendix B - Table 1 – Table 7). This portion of the analysis examines any existing or historical contamination that has been detected at the drinking water source through routine sampling. It also reviews contamination that has or may have occurred but has not

arrived or been detected at the well. Table 2 summarizes the Contaminant Risks for each category of drinking water contaminants.

Table 2. Contaminant Risks

Contaminant Risks	Score	Rating
Bacteria and Viruses	37	High
Nitrates and/or Nitrites	41	Very High
Volatile Organic Chemicals	40	Very High
Heavy Metals, Cyanide, And Other Inorganic Chemicals	23	Medium
Synthetic Organic Chemicals	15	Low
Other Organic Chemicals	23	Medium

Appendix D contains fourteen charts, which together form the 'Vulnerability Analysis' for a Class A public drinking water system. 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 Aquifer' 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 Analysis for nitrates and nitrites, volatile organic chemicals, heavy metals, synthetic organic chemicals, and other organic chemicals, respectively.

Vulnerability of the drinking water source to contamination is the combination of susceptibility of the aquifer and the well with contaminant risks. Table 3 contains the overall vulnerability scores (0 – 100) and ratings for each of the six categories of drinking water contaminants (See Appendix D). Note: scores are rounded off to the nearest five.

Table 3. Overall Vulnerability of Four Seasons Trailer Court's Public Drinking Water Source to Contamination by Category

Category	Score	Rating
Bacteria and Viruses	50	Medium
Nitrates and Nitrites	55	Medium
Volatile Organic Chemicals	55	Medium
Heavy Metals, Cyanide, and Other Inorganic Chemicals	35	Low
Synthetic Organic Chemicals	30	Low
Other Organic Chemicals	35	Low

Tables 2 through 7 in Appendix B contain the ranking of potential and existing sources of contamination with respect to bacteria and viruses, nitrates and/or nitrites, heavy metals, synthetic organic chemicals, and other organic chemicals, respectively.

Overall, contaminant risks for bacteria and viruses are high with the density of residential area, domestic wastewater sewer lines and septic systems driving the increase of contaminant risks. Combining this potential bacteria and viruses contamination risk with the natural susceptibility of the well leads to an overall vulnerability to contamination of medium.

Other low potential and existing sources of contamination for bacteria and viruses include activities associated with parks and recreation trails, highways and roads, and a class V motor vehicle waste disposal injection well.

Nitrates and/or nitrites are found in natural background concentrations at the site, as elsewhere in the Alaska. Sampling history of Four Seasons Trailer Court's source waters indicate low concentrations of nitrate (See Chart 5 – Contaminant Risks for Nitrates and/or Nitrites in Appendix D). Existing nitrate contamination is approximately 0.02% of the allowable limit (MCL) for this contaminant. The Maximum Contaminant Level or 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. Due to the high solubility and weak retention by soil, nitrates are very mobile, moving at approximately the same rate as water. Since the mid 1990's, nitrate levels in Four Seasons Trailer Court's well have showed a slight increase (from 0.14 mg/L in 1995 to 0.20 mg/L in 2001).

Though existing contamination was detected at the site in natural background concentrations for nitrates, the amount detected remains at very safe levels with respect to human health.

Overall, contaminant risks for nitrates and/or nitrites are very high with the density of domestic wastewater sewer lines and residential areas driving the increase of contaminant risks. Combining this potential nitrates and/or nitrites contamination risk with the natural susceptibility of the well leads to an overall vulnerability to contamination of medium.

Other low potential and existing sources of nitrates and/or nitrites for Four Seasons Trailer Court's source waters include activities associated with parks and recreation trails, septic systems, and hardware stores located within the protection area.

Overall, contaminant risks for volatile organic chemicals is very high with underground storage tanks associated with gasoline stations, a class V motor vehicle waste disposal well and 5 ADEC recognized contaminated sites driving the increase of contaminant risks. Combining this potential volatile organic chemical contamination risk with the natural susceptibility of the well leads to an overall vulnerability to contamination of medium.

Historical sampling records for Four Seasons Trailer Court indicate that no volatile organic chemicals have been detected at the well to date. Four of the five ADEC recognized contaminated sites are located within Zone D or the ten year time-of-travel. Because of their distant proximity to the well serving Four Seasons Trailer Court, these sources present a low potential risk for volatile organic chemicals.

In 1989 two underground diesel fuel tanks used for refueling truck were removed from 439 Idaho Street (CS ID Tag U4-1). Soil and groundwater contamination was documented upon the removal of the tanks. Gasoline and diesel constituents and trace amounts of chlorinated solvents were identified at the site. The status of this site is currently open. A release investigation is currently being outlined in order to determine the extent of contamination and initiate clean-up and closure for this site. This site falls within the five year time-of-travel or Zone C of the protection area established for Four Seasons Trailer Court.

On May 30, 1997, a confirmed release of petroleum hydrocarbons from leaking underground fuel storage tanks (LUST's) were recorded at Tesoro Northstore #11 (CS ID Tag U4-2) located at 317 Muldoon Road. On August 19, 1997 two 12,000 gallon gasoline tanks and one 6,000 gallon diesel tank were closed and removed. A release investigation was initiated September 28, 1999 to determine extent of contamination. This site falls within the ten year time-of-travel or Zone D of the protection area established for Four Seasons Trailer Court.

On July 24, 1989, a confirmed of release of petroleum hydrocarbons was recorded at Chevron #8557 (CS ID Tag U4-3) located at 415 Muldoon Road. Soil and groundwater contamination was documented on August 8, 1989. Analytical soil samples indicate the contamination consists primarily of gasoline, diesel, and waste oil. It is believed that contamination is concentrated at or near the groundwater surface. The source and extent of contamination has not been determined. However, on July 24, 1989 a Corrective Action Plan (CAP) was designed and a long term monitoring plan was initiated. Currently, the site is being monitored quarterly. This site falls within the ten year time-of-travel or Zone D of the protection area established for Four Seasons Trailer Court.

On September 28, 1995, contamination was found around and under the underground storage tanks (UST's) at Tesoro Northstore #55 (CS ID Tag U4-4) located at 545 Muldoon Road. Closure of this site involved the removal of two gasoline tanks, a fuel island with two dispensers and the associated product line and piping. A total of approximately 38 tons of petroleum contaminated soils were removed during the excavation and removal of the UST system and transported to the Clean Soils facility for thermal treatment. Documentation was provided by Clean Soils on February 6, 1997, confirming that the soils were satisfactorily treated. Laboratory results from the confirmation sampling at the excavation site, representing undisturbed soils below the UST system, indicate that all the contaminated soils were removed. Tesoro Northstore #55 replaced the UST system with a new 25,000 gallon, three compartment, double-walled UST. This site falls within the ten year time-of-travel or Zone D of the protection area established for Four Seasons Trailer Court.

On July 17, 1989, soils and groundwater contamination was encountered during the removal of 7 UST's at Texaco #50 (CS ID Tag U4-5) located at 601 Muldoon Road. On July 20, 1989, a CAP was initiated to dispose of approximately 735 tons of contaminated soils excavated from the site at Anchorage Sand and Gravel. As part of the CAP monitoring wells were installed at and around the site for further soil and groundwater investigation. A water well survey identified 7 wells downgradient of the contaminated site. A water sample taken from one of the wells on January 27, 1990 indicated that hydrocarbon contamination was present. Proposed remediation of this site includes soil vapor extraction and groundwater recovery and/or air stripping

treatment. This site falls within the ten year time-of-travel or Zone D of the protection area established for Four Seasons Trailer Court.

Other low potential and existing sources of volatile organic chemicals include activities associated with highways and roads, domestic wastewater sewer lines, septic systems, residential areas, construction trade areas, hardware stores and appliance repair shops, and a car wash providing engine and/or undercarriage cleaning.

Overall, contaminant risks for heavy metals, cyanide and other inorganic chemicals is medium with a class V motor vehicle waste disposal injection well, underground storage tanks associated with gasoline stations, and a car wash providing engine and/or undercarriage cleaning driving the increase of potential contaminant risks. Combining this potential contaminant risk with the natural susceptibility of the well leads to an overall vulnerability to contamination of low.

Historical sampling records for Four Seasons Trailer Court indicate that no heavy metals, cyanide or other inorganic chemicals have been detected at the well to date. The class V motor vehicle waste disposal injection well presents the highest potential risk for this contaminant category.

Overall, contaminant risks for synthetic organic chemicals is low and other organic chemicals is medium with the class V injection well and car wash providing engine and/or undercarriage cleaning driving the increase of potential contaminant risks for both categories. Combining this potential contaminant risk with the natural susceptibility of the well leads to an overall vulnerability to contamination of low.

Other low potential sources of contamination for synthetic organic chemicals and other organic chemicals include activities associated with gasoline stations, construction areas, hardware stores and appliance repair shops.

SUMMARY

A *Source Water Assessment* has been completed for the source of public drinking water serving Four Seasons Trailer Court. The overall vulnerability of this source to contamination is **Medium** for bacteria and viruses, nitrates and/or nitrites and volatile organic chemicals and **Low** for heavy metals, synthetic organic chemicals, and other organic chemicals. This assessment of contaminant risks can be used as a foundation for local voluntary protection efforts as well as a basis for the continuous efforts on the part of Four Seasons Trailer Court to protect public health. It is anticipated that *Source Water Assessments* will be updated every five years to reflect any changes in the vulnerability and/or susceptibility of Four Seasons Trailer Court's public drinking water source.

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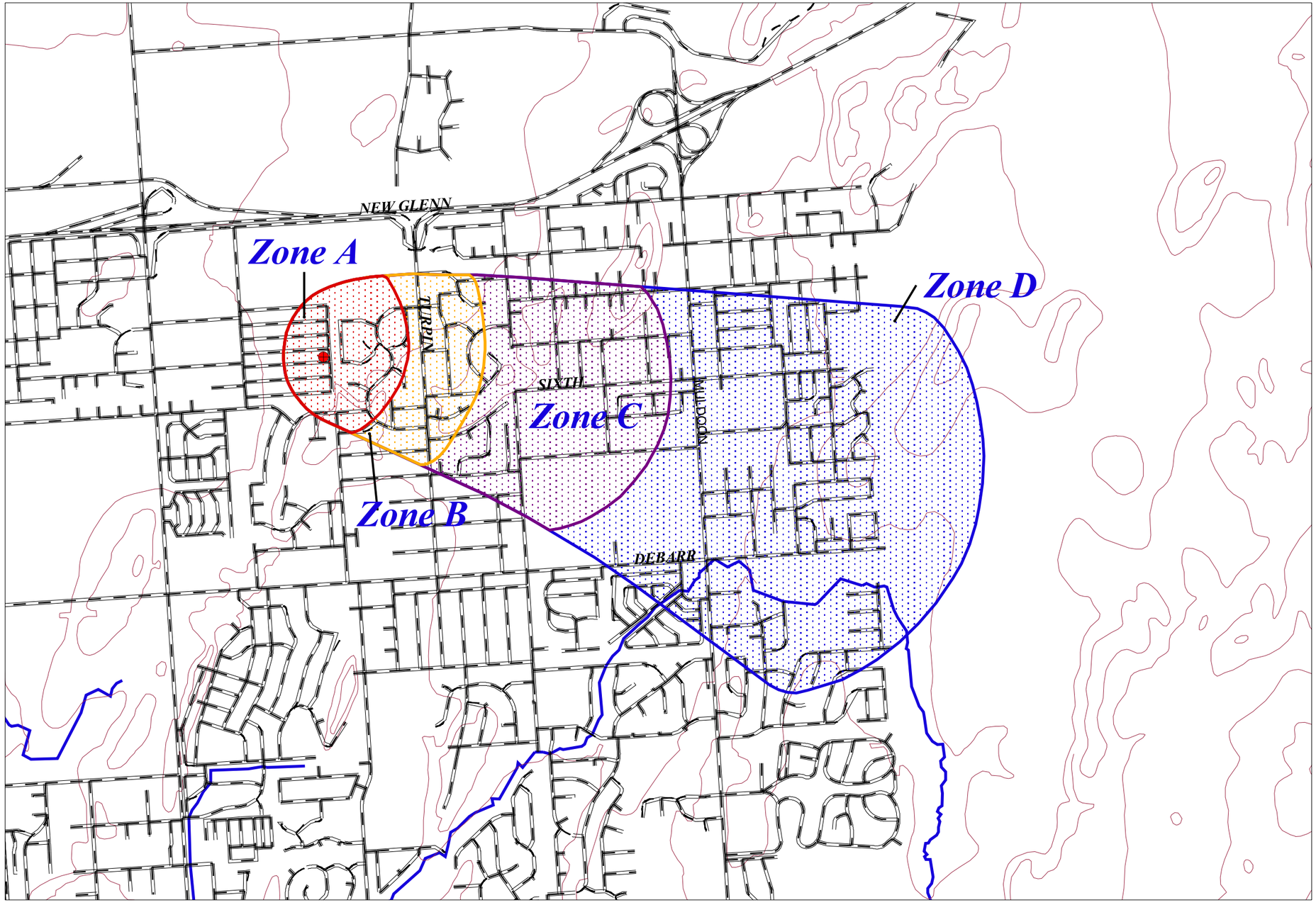
APPENDIX A

Four Seasons Trailer Court
Drinking Water Protection Area

Drinking Water Protection Area for
Four Seasons Trailer Court



- Public Water System

Zone A Protection Area
- Several Months Travel Time

Zone B Protection Area
- Less Than 2 Years Travel Time

Zone C Protection Area
- Less Than 5 Years Travel Time

Zone D Protection Area
- Less Than 10 Years Travel Time

- Roads
- Elevation Contours
- Anchorage Streams

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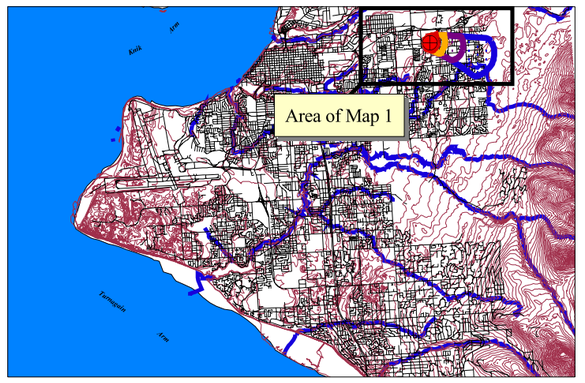

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PWSID 210320.001

Map 1

APPENDIX B

Contaminant Source Inventory and Risk Ranking for Four Seasons Trailer Court

Table 1

Contamiant Source Inventory for
Four Seasons Trailer Court

PWSID 210320.001

Contaminant Source Category	Contaminant Source ID	CS ID Tag	Zone	Location	Map	Comments
Construction trade areas and materials	C9	C9-1	A	Stadem	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-1	A	between Greenbriar and Honeysuckle	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-10	A	Donna	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-11	A	Falke	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-12	A	Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-13	A	Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-2	A		2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-3	A	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-32	A	Between Greenbriar and Fleetwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-33	A	Between Fleetwood and Elmwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-34	A	Between Elmwood and Driftwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-35	A	Between Driftwood and Cranberry	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-36	A	Between Cranberry and Birchwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-4	A	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-5	A	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-6	A	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-7	A	Habicht	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-8	A	between Habicht and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-9	A	Sixth	2	
Residential Areas	R1	R1-1	A	entire subdivision	3	23 Acres
Septic systems (serves one or more single-family homes)	R2	R2-1	A	Donna	3	

Septic systems (serves one or more single-family homes)	R2	R2-2	A	Sixth	3	
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Honeysuckle	2	
Highways and roads, paved (cement or asphalt)	x20	X20-10	A	Peppertree Loop	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Peppertree Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-12	A	Donna	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	A	Krane	2	
Highways and roads, paved (cement or asphalt)	x20	X20-15	A	Habicht	2	
Highways and roads, paved (cement or asphalt)	X20	X20-16	A	Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Greenbriar	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Fleetewood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Elmwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Driftwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Cranberry	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Birchwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Unnamed	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Peppertree Loop	2	
Dog walking areas/foot trails	X46	X46-2	A	south of Stadem	3	
Highways and roads, paved (cement or asphalt)	X20	X20-17	A, B	Edward	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-14	B	Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-15	B	along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-16	B	along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-17	B	along Lilas	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-18	B	betwwn Donna and Sixth	2	

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-19	B	along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-20	B		2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-21	B	along Elmrich	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-22	B	along Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-24	B	along Fern	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-25	B	off Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-26	B		2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-27	B	along Third	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-28	B	along Fredericks	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-29	B	along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-30	B	along Princess	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-31	B	along Queens View	2	
Residential Areas	R1	R1-2	B	entire subdivision	3	65 Acres
Septic systems (serves one or more single-family homes)	R2	R2-3	B	Lilas and Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-4	B	Markstrom	3	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Falke	2	
Highways and roads, paved (cement or asphalt)	X20	X20-18	B	Turpin	2	
Highways and roads, paved (cement or asphalt)	X20	X20-19	B	Fourth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-20	B	Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-21	B	Lilas	2	
Highways and roads, paved (cement or asphalt)	X20	X20-22	B	Sixth Ave	2	
Highways and roads, paved (cement or asphalt)	X20	X20-23	B	Markstrom	2	
Highways and roads, paved (cement or asphalt)	X20	X20-24	B	Princess	2	

Highways and roads, paved (cement or asphalt)	X20	X20-25	B	Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-26	B	Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-27	B	Fredericks	2	
Highways and roads, paved (cement or asphalt)	X20	X20-28	B	Third	2	
Highways and roads, paved (cement or asphalt)	X20	X20-29	B	Elmrich	2	
Dog walking areas/foot trails	X46	X46-1	B	along Turpin	3	
Dog walking areas/foot trails	X46	X46-3	B	along Edward	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D1		C	48 sewer lines in Zone C	4	
Highways and roads, paved (cement or asphalt)	X20		C	28 roads in Zone C	4	
Hardware stores	C17	C17-1	C	Duben	4	
Appliance repair shops	C3	C3-1	C	Trafford	4	
Construction trade areas and materials	C9	C9-2	C	Fourth and Patterson	4	
Residential Areas	R1	R1-3	C	entire subdivision	4	180 Acres
Septic systems (serves one or more single-family homes)	R2	R2-5	C	Sixth and Patsy	4	
Septic systems (serves one or more single-family homes)	R2	R2-6	C	Old Harbor	4	
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-1	C	439 Idaho Street	4	Soil/groundwater contamination documented during 1989 UST removal. Gasoline and diesel constituents and trace amounts of chlorinated solvents identified. Status - OPEN. ADEC File #L25.01.
Motor vehicle/general storage yards/facilities	X27	X27-1	C	Fourth	4	
Municipal or city parks (with green areas)	X4	X4-1	C	Creekside Park	4	
Dog walking areas/foot trails	X46	X46-4	C	along Sixth	4	
Dog walking areas/foot trails	X46	X46-5	C	along Patterson	4	
Gasoline stations (without repair shop)	C15	C15-1	D	Muldoon and Third	5	
Gasoline stations (without repair shop)	C15	C15-2	D	Muldoon and Fifth	5	
Gasoline stations (with repair shop)	C16	C16-1	D	Muldoon and Fourth	5	
Gasoline stations (with repair shop)	C16	C16-2	D	Muldoon and Sixth	5	

Car washes with engine or undercarriage cleaning	C8	C8-1	D	Muldoon and Fifth	5	
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	Muldoon and Eleventh	5	
Tanks, gasoline (underground)	T12	T12-1	D	Muldoon and Third	5	
Tanks, gasoline (underground)	T12	T12-2	D	Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-3	D	Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-4	D	Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-5	D	Muldoon between Fifth and Sixth	5	
Tanks, gasoline (underground)	T12	T12-6	D	Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-7	D	Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-8	D	Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-9	D	Debarr	5	
Tanks, diesel (underground)	T8	T8-1	D	Muldoon and Third	5	
Tanks, diesel (underground)	T8	T8-2	D	Muldoon and Fourth	5	
Tanks, diesel (underground)	T8	T8-3	D	Muldoon and Fourth	5	
Tanks, diesel (underground)	T8	T8-4	D	on Muldoon between Fifth and Sixth	5	
Tanks, diesel (underground)	T8	T8-5	D	Muldoon and Sixth	5	
Tanks, diesel (underground)	T8	T8-6	D	Debarr	5	
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-2	D	317 Muldoon Road	5	ADEC confirmed release of petroleum hydrocarbons (5/30/97) from a leaking underground fuel storage tank and initiated cleanup on 5/31/97. Release investigation initiated 1999.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-3	D	415 Muldoon Road	5	Soil and groundwater cotnamination noted 8/89 of petroleum hydrocarbon contamination (1990) predominately gasoline, diesel, and waste oil. Quantity and date of spill unknown. Corrective action plan initiated 7/24/89
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-4	D	545 Muldoon Road	5	Soil Contamination found around and under UST's during closure and removal. 38 tones of contaminated soil was hauled to Clean Souls for thermal treatment. Status - CLOSED. ADEC File #L20.55

Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-5	D	601 Muldoon Road	5	Release associated with two diesel tanks. Status - OPEN. ADEC File #L55.229.

Table 2

Contaminant Source Inventory and Risk Ranking for
ASD O'Malley Elementary School
Sources of Bacteria and Viruses

PWSID 211033.001

Contaminant Source Type	Contaminant Source ID	CS ID Tag	Zone	Risk Ranking for Analysis	Overall Rank After Analysis	Location	Map Number	Comments
Residential Areas	R1	R1-1	A	Low	1	entire subdivision	3	23 Acres
Septic systems (serves one or more single-family homes)	R2	R2-1	A	Low	2	Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-2	A	Low	3	Sixth	3	
Septic systems (serves one or more single-family homes)	R2	R2-3	B	Very Low	4	Lilas and Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-4	B	Very Low	5	Markstrom	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-34	A	Medium	6	Between Elmwood and Driftwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-35	A	Medium	7	Between Driftwood and Cranberry	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-33	A	Medium	8	Between Fleetwood and Elmwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-36	A	Medium	9	Between Cranberry and Birchwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-32	A	Medium	10	Between Greenbriar and Fleetwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-10	A	Medium		Donna	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-11	A	Medium		Falke	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-12	A	Medium		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-13	A	Medium		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-2	A	Medium			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-3	A	Medium		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-4	A	Medium		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-5	A	Medium		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-6	A	Medium		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-7	A	Medium		Habicht	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-8	A	Medium		between Habicht and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-9	A	Medium		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Very Low		Honeysuckle	2	

Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Very Low		Peppertree Loop	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Very Low		Peppertree Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-12	A	Very Low		Donna	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	A	Very Low		Krane	2	
Highways and roads, paved (cement or asphalt)	X20	X20-15	A	Very Low		Habicht	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Very Low		Greenbriar	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Very Low		Fleetewood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Very Low		Elmwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Very Low		Driftwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Very Low		Cranberry	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Very Low		Birchwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Very Low		Unnamed	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Very Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-14	B	Medium		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-18	B	Medium		betwwn Donna and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-19	B	Medium		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-20	B	Medium			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-21	B	Medium		along Elmrich	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-22	B	Medium		along Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-24	B	Medium		along Fern	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-25	B	Medium		off Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-26	B	Medium			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-27	B	Medium		along Third	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-28	B	Medium		along Fredericks	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-29	B	Medium		along Sixth	2	

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-30	B	Medium		along Princess	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-31	B	Medium		along Queens View	2	
Residential Areas	R1	R1-2	B	Low		entire subdivision	3	65 Acres
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Very Low		Falke	2	
Highways and roads, paved (cement or asphalt)	X20	X20-20	B	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-21	B	Very Low		Lilas	2	
Highways and roads, paved (cement or asphalt)	X20	X20-22	B	Very Low		Sixth Ave	2	
Highways and roads, paved (cement or asphalt)	X20	X20-23	B	Very Low		Markstrom	2	
Highways and roads, paved (cement or asphalt)	X20	X20-24	B	Very Low		Princess	2	
Highways and roads, paved (cement or asphalt)	X20	X20-25	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-26	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-27	B	Very Low		Fredericks	2	
Highways and roads, paved (cement or asphalt)	X20	X20-28	B	Very Low		Third	2	
Highways and roads, paved (cement or asphalt)	X20	X20-29	B	Very Low		Elmrich	2	
Dog walking areas/foot trails	X46	X46-1	B	Very Low		along Turpin	3	
Dog walking areas/foot trails	X46	X46-3	B	Very Low		along Edward	3	
Residential Areas	R1	R1-3	C	Low		entire subdivision	4	180 Acres
Municipal or city parks (with green areas)	X4	X4-1	C	Very Low		Creekside Park	4	
Dog walking areas/foot trails	X46	X46-4	C	Very Low		along Sixth	4	
Dog walking areas/foot trails	X46	X46-5	C	Very Low		along Patterson	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D1		C	Medium		48 sewer lines in Zone C	4	
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	Low		Muldoon and Eleventh	5	

Table 3

Contaminant Source Inventory and Risk Ranking for
Four Seasons Trailer Court
Sources of Nitrates/Nitrites

PWSID 210320.001

Contaminant Source Type	Contaminant Source ID	CS ID Tag	Zone	Risk Ranking for Analysis	Overall Rank After Analysis	Location	Map Number	Comments
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-34	A	Medium	1	Between Elmwood and Driftwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-35	A	Medium	2	Between Driftwood and Cranberry	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-36	A	Medium	3	Between Cranberry and Birchwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-33	A	Medium	4	Between Fleetwood and Elmwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-4	A	Medium	5	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-6	A	Medium	6	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-32	A	Medium	7	Between Greenbriar and Fleetwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-7	A	Medium	8	Habicht	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-2	A	Medium	9		2	
Residential Areas	R1	R1-1	A	Low	10	entire subdivision	3	23 Acres
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-1	A	Medium		between Greenbriar and Honeysuckle	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-10	A	Medium		Donna	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-11	A	Medium		Falke	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-12	A	Medium		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-13	A	Medium		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-3	A	Medium		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-5	A	Medium		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-8	A	Medium		between Habicht and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-9	A	Medium		Sixth	2	
Septic systems (serves one or more single-family homes)	R2	R2-1	A	Very Low		Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-2	A	Very Low		Sixth	3	
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Low		Honeysuckle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Low		Peppertree Loop	2	

Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Low		Peppertree Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-12	A	Low		Donna	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	A	Low		Krane	2	
Highways and roads, paved (cement or asphalt)	X20	X20-15	A	Low		Habicht	2	
Highways and roads, paved (cement or asphalt)	X20	X20-16	A	Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low		Greenbriar	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Low		Fleetewood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Low		Elmwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Low		Driftwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Low		Cranberry	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Low		Birchwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Low		Unnamed	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Low		Peppertree Loop	2	
Dog walking areas/foot trails	X46	X46-2	A	Very Low		south of Stadem	3	
Highways and roads, paved (cement or asphalt)	X20	X20-17	A, B	Low		Edward	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-14	B	Medium		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-15	B	Medium		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-16	B	Medium		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-17	B	Medium		along Lilas	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-18	B	Medium		betwwn Donna and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-19	B	Medium		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-20	B	Medium			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-21	B	Medium		along Elmrich	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-22	B	Medium		along Dickerson	2	

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-24	B	Medium		along Fern	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-25	B	Medium		off Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-26	B	Medium			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-27	B	Medium		along Third	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-28	B	Medium		along Fredericks	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-29	B	Medium		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-30	B	Medium		along Princess	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-31	B	Medium		along Queens View	2	
Residential Areas	R1	R1-2	B	Low		entire subdivision	3	65 Acres
Septic systems (serves one or more single-family homes)	R2	R2-3	B	Very Low		Lilas and Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-4	B	Very Low		Markstrom	3	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Very Low		Falke	2	
Highways and roads, paved (cement or asphalt)	X20	X20-18	B	Very Low		Turpin	2	
Highways and roads, paved (cement or asphalt)	X20	X20-19	B	Very Low		Fourth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-20	B	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-21	B	Very Low		Lilas	2	
Highways and roads, paved (cement or asphalt)	X20	X20-22	B	Very Low		Sixth Ave	2	
Highways and roads, paved (cement or asphalt)	X20	X20-23	B	Very Low		Markstrom	2	
Highways and roads, paved (cement or asphalt)	X20	X20-24	B	Very Low		Princess	2	
Highways and roads, paved (cement or asphalt)	X20	X20-25	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-26	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-27	B	Very Low		Fredericks	2	
Highways and roads, paved (cement or asphalt)	X20	X20-28	B	Very Low		Third	2	
Highways and roads, paved (cement or asphalt)	X20	X20-29	B	Very Low		Elmrich	2	

Dog walking areas/foot trails	X46	X46-1	B	Very Low		along Turpin	3	
Dog walking areas/foot trails	X46	X46-3	B	Very Low		along Edward	3	
Hardware stores	C17	C17-1	C	Low		Duben	4	
Residential Areas	R1	R1-3	C	Low		entire subdivision	4	180 Acres
Septic systems (serves one or more single-family homes)	R2	R2-5	C	Very Low		Sixth and Patsy	4	
Septic systems (serves one or more single-family homes)	R2	R2-6	C	Very Low		Old Harbor	4	
Municipal or city parks (with green areas)	X4	X4-1	C	Very Low		Creekside Park	4	
Dog walking areas/foot trails	X46	X46-4	C	Very Low		along Sixth	4	
Dog walking areas/foot trails	X46	X46-5	C	Very Low		along Patterson	4	
Highways and roads, paved (cement or asphalt)	X20		C	Very Low		28 roads in Zone C	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D1		C	Medium		48 sewer lines in Zone C	4	

Table 4

Contaminant Source Inventory and Risk Ranking for
Four Seasons Trailer Court
Sources of Volatile Organic Chemicals

PWSID 210320.001

Contaminant Source Type	Contaminant Source ID	CS ID Tag	Zone	Risk Ranking for Analysis	Overall Rank After Analysis	Location	Map Number	Comments
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Very Low	1	Elmwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Very Low	2	Driftwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Very Low	3	Unnamed	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Very Low	4	Birchwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Very Low	5	Fleetewood	2	
Highways and roads, paved (cement or asphalt)	x20	X20-10	A	Very Low	6	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-34	A	Low	7	Between Elmwood and Driftwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-35	A	Low	8	Between Driftwood and Cranberry	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-4	A	Low	9	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-2	A	Low	10		2	
Construction trade areas and materials	C9	C9-1	A	Low		Stadem	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-1	A	Low		between Greenbriar and Honeysuckle	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-10	A	Low		Donna	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-11	A	Low		Falke	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-12	A	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-13	A	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-3	A	Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-32	A	Low		Between Greenbriar and Fleetwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-33	A	Low		Between Fleetwood and Elmwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-36	A	Low		Between Cranberry and Birchwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-5	A	Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-6	A	Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-7	A	Low		Habicht	2	

Contaminant Source Inventory and Risk Ranking for
Four Seasons Trailer Court
Sources of Volatile Organic Chemicals

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-8	A	Low		between Habicht and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-9	A	Low		Sixth	2	
Residential Areas	R1	R1-1	A	Low		entire subdivision	3	23 Acres
Septic systems (serves one or more single-family homes)	R2	R2-1	A	Very Low		Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-2	A	Very Low		Sixth	3	
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Very Low		Honeysuckle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Very Low		Peppertree Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-12	A	Very Low		Donna	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	A	Very Low		Krane	2	
Highways and roads, paved (cement or asphalt)	x20	X20-15	A	Very Low		Habicht	2	
Highways and roads, paved (cement or asphalt)	X20	X20-16	A	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Very Low		Greenbriar	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Very Low		Cranberry	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Very Low		Peppertree Loop	2	
Highways and roads, paved (cement or asphalt)	X20	X20-17	A, B	Very Low		Edward	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-14	B	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-15	B	Low		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-16	B	Low		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-17	B	Low		along Lilas	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-18	B	Low		betwwn Donna and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-19	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-20	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-21	B	Low		along Elmrich	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-22	B	Low		along Dickerson	2	

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-24	B	Low		along Fern	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-25	B	Low		off Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-26	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-27	B	Low		along Third	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-28	B	Low		along Fredericks	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-29	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-30	B	Low		along Princess	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-31	B	Low		along Queens View	2	
Residential Areas	R1	R1-2	B	Very Low		entire subdivision	3	65 Acres
Septic systems (serves one or more single-family homes)	R2	R2-3	B	Low		Lilas and Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-4	B	Low		Markstrom	3	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Very Low		Falke	2	
Highways and roads, paved (cement or asphalt)	X20	X20-18	B	Very Low		Turpin	2	
Highways and roads, paved (cement or asphalt)	X20	X20-19	B	Very Low		Fourth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-20	B	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-21	B	Very Low		Lilas	2	
Highways and roads, paved (cement or asphalt)	X20	X20-22	B	Very Low		Sixth Ave	2	
Highways and roads, paved (cement or asphalt)	X20	X20-23	B	Very Low		Markstrom	2	
Highways and roads, paved (cement or asphalt)	X20	X20-24	B	Very Low		Princess	2	
Highways and roads, paved (cement or asphalt)	X20	X20-25	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-26	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-27	B	Very Low		Fredericks	2	
Highways and roads, paved (cement or asphalt)	X20	X20-28	B	Very Low		Third	2	
Highways and roads, paved (cement or asphalt)	X20	X20-29	B	Very Low		Elmrich	2	

Contaminant Source Inventory and Risk Ranking for
Four Seasons Trailer Court
Sources of Volatile Organic Chemicals

Hardware stores	C17	C17-1	C	Low		Duben	4	
Appliance repair shops	C3	C3-1	C	Low		Trafford	4	
Construction trade areas and materials	C9	C9-2	C	Low		Fourth and Patterson	4	
Residential Areas	R1	R1-3	C	Low		entire subdivision	4	180 Acres
Septic systems (serves one or more single-family homes)	R2	R2-5	C	Very Low		Sixth and Patsy	4	
Septic systems (serves one or more single-family homes)	R2	R2-6	C	Very Low		Old Harbor	4	
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-1	C	Medium		439 Idaho Street	4	Soil/groundwater contamination documented during 1989 UST removal. Gasoline and diesel constituents and trace amounts of chlorinated solvents identified. Status - OPEN. ADEC File #L25.01.
Motor vehicle/general storage yards/facilities	X27	X27-1	C	Low		Fourth	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D1		C	Low		48 sewer lines in Zone C	4	
Highways and roads, paved (cement or asphalt)	X20		C	Very Low		28 roads in Zone C	4	
Gasoline stations (without repair shop)	C15	C15-1	D	High		Muldoon and Third	5	
Gasoline stations (without repair shop)	C15	C15-2	D	High		Muldoon and Fifth	5	
Gasoline stations (with repair shop)	C16	C16-1	D	High		Muldoon and Fourth	5	
Gasoline stations (with repair shop)	C16	C16-2	D	High		Muldoon and Sixth	5	
Car washes with engine or undercarriage cleaning	C8	C8-1	D	High		Muldoon and Fifth	5	
Car washes with engine or undercarriage cleaning	C8	C8-1	D	High		Muldoon and Fifth	5	
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	High		Muldoon and Eleventh	5	
Tanks, gasoline (underground)	T12	T12-1	D	High		Muldoon and Third	5	
Tanks, gasoline (underground)	T12	T12-2	D	High		Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-3	D	High		Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-4	D	High		Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-5	D	High		Muldoon between Fifth and Sixth	5	

Contaminant Source Inventory and Risk Ranking for
Four Seasons Trailer Court
Sources of Volatile Organic Chemicals

Tanks, gasoline (underground)	T12	T12-6	D	High		Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-7	D	High		Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-8	D	High		Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-9	D	High		Debarr	5	
Tanks, diesel (underground)	T8	T8-1	D	High		Muldoon and Third	5	
Tanks, diesel (underground)	T8	T8-2	D	High		Muldoon and Fourth	5	
Tanks, diesel (underground)	T8	T8-3	D	High		Muldoon and Fourth	5	
Tanks, diesel (underground)	T8	T8-4	D	High		on Muldoon between Fifth and Sixth	5	
Tanks, diesel (underground)	T8	T8-5	D	High		Muldoon and Sixth	5	
Tanks, diesel (underground)	T8	T8-6	D	High		Debarr	5	
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-2	D	Low		317 Muldoon Road	5	ADEC confirmed release of petroleum hydrocarbons (5/30/97) from a leaking undergroun fuel storage tank and initiated cleanup on 5/31/97. Release investigation initiated 1999. ADEC File # L20.11
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-3	D	Low		415 Muldoon Road	5	Soil and groundwater cotnamination noted 8/89 of petroleum hydrocarbon contamination (1990) predominately gasoline, diesel, and waste oil. Quantity and date of spill unknown. Corrective action plan initiated 7/24/89. ADEC File # L10.06
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-4	D	Low		545 Muldoon Road	5	Soil Contamination found around and under UST's during closure and removal. 38 tones of contaminated soil was hauled to Clean Souls for thermal treatment. Status - CLOSED. ADEC File #L20.55
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U4	U4-5	D	Medium		601 Muldoon Road	5	Release associated with two diesel tanks. Status - OPEN. ADEC File #L55.229.

Table 5 **Contaminant Source Inventory and Risk Ranking for Four Seasons Trailer Court Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals** **PWSID 210320.001**

Contaminant Source Type	Contaminant Source ID	CS ID Tag	Zone	Risk Ranking for Analysis	Overall Rank After Analysis	Location	Map Number	Comments
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-34	A	Low	1	Between Elmwood and Driftwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-35	A	Low	2	Between Driftwood and Cranberry	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-36	A	Low	3	Between Cranberry and Birchwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-33	A	Low	4	Between Fleetwood and Elmwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-32	A	Low	5	Between Greenbriar and Fleetwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-4	A	Low	6	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-2	A	Low	7		2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-1	A	Low	8	between Greenbriar and Honeysuckle	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-3	A	Low	9	Peppertree Loop	2	
Residential Areas	R1	R1-1	A	Low	10	entire subdivision	3	23 Acres
Construction trade areas and materials	C9	C9-1	A	Low		Stadem	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-10	A	Low		Donna	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-11	A	Low		Falke	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-12	A	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-13	A	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-5	A	Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-6	A	Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-7	A	Low		Habicht	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-8	A	Low		between Habicht and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-9	A	Low		Sixth	2	
Septic systems (serves one or more single-family homes)	R2	R2-1	A	Very Low		Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-2	A	Very Low		Sixth	3	
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Very Low		Honeysuckle	2	

Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Very Low		Peppertree Loop	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Very Low		Peppertree Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-12	A	Very Low		Donna	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	A	Very Low		Krane	2	
Highways and roads, paved (cement or asphalt)	X20	X20-15	A	Very Low		Habicht	2	
Highways and roads, paved (cement or asphalt)	X20	X20-16	A	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Very Low		Greenbriar	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Very Low		Fleetewood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Very Low		Elmwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Very Low		Driftwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Very Low		Cranberry	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Very Low		Birchwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Very Low		Unnamed	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Very Low		Peppertree Loop	2	
Highways and roads, paved (cement or asphalt)	X20	X20-17	A, B	Very Low		Edward	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-14	B	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-15	B	Low		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-16	B	Low		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-17	B	Low		along Lilas	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-18	B	Low		betwwn Donna and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-19	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-20	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-21	B	Low		along Elmrich	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-22	B	Low		along Dickerson	2	

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-24	B	Low		along Fern	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-25	B	Low		off Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-26	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-27	B	Low		along Third	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-28	B	Low		along Fredericks	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-29	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-30	B	Low		along Princess	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-31	B	Low		along Queens View	2	
Residential Areas	R1	R1-2	B	Low		entire subdivision	3	65 Acres
Septic systems (serves one or more single-family homes)	R2	R2-3	B	Very Low		Lilas and Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-4	B	Very Low		Markstrom	3	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Very Low		Falke	2	
Highways and roads, paved (cement or asphalt)	X20	X20-18	B	Very Low		Turpin	2	
Highways and roads, paved (cement or asphalt)	X20	X20-19	B	Very Low		Fourth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-20	B	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-21	B	Very Low		Lilas	2	
Highways and roads, paved (cement or asphalt)	X20	X20-22	B	Very Low		Sixth Ave	2	
Highways and roads, paved (cement or asphalt)	X20	X20-23	B	Very Low		Markstrom	2	
Highways and roads, paved (cement or asphalt)	X20	X20-24	B	Very Low		Princess	2	
Highways and roads, paved (cement or asphalt)	X20	X20-25	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-26	B	Very Low		Queens View Circle	2	
Highways and roads, paved (cement or asphalt)	X20	X20-27	B	Very Low		Fredericks	2	
Highways and roads, paved (cement or asphalt)	X20	X20-28	B	Very Low		Third	2	
Highways and roads, paved (cement or asphalt)	X20	X20-29	B	Very Low		Elmrich	2	

Hardware stores	C17	C17-1	C	Low		Duben	4	
Appliance repair shops	C3	C3-1	C	Low		Trafford	4	
Construction trade areas and materials	C9	C9-2	C	Low		Fourth and Patterson	4	
Residential Areas	R1	R1-3	C	Low		entire subdivision	4	180 Acres
Septic systems (serves one or more single-family homes)	R2	R2-5	C	Very Low		Sixth and Patsy	4	
Septic systems (serves one or more single-family homes)	R2	R2-6	C	Very Low		Old Harbor	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D1		C	Low		48 sewer lines in Zone C	4	
Highways and roads, paved (cement or asphalt)	X20		C	Very Low		28 roads in Zone C	4	
Gasoline stations (with repair shop)	C16	C16-1	D	Low		Muldoon and Fourth	5	
Gasoline stations (with repair shop)	C16	C16-2	D	Low		Muldoon and Sixth	5	
Car washes with engine or undercarriage cleaning	C8	C8-1	D	Medium		Muldoon and Fifth	5	
Car washes with engine or undercarriage cleaning	C8	C8-1	D	Medium		Muldoon and Fifth	5	
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	High		Muldoon and Eleventh	5	
Tanks, gasoline (underground)	T12	T12-1	D	Medium		Muldoon and Third	5	
Tanks, gasoline (underground)	T12	T12-2	D	Medium		Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-3	D	Medium		Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-4	D	Medium		Muldoon and Fourth	5	
Tanks, gasoline (underground)	T12	T12-5	D	Medium		Muldoon between Fifth and Sixth	5	
Tanks, gasoline (underground)	T12	T12-6	D	Medium		Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-7	D	Medium		Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-8	D	Medium		Muldoon and Sixth	5	
Tanks, gasoline (underground)	T12	T12-9	D	Medium		Debarr	5	

Table 6

Contaminant Source Inventory and Risk Ranking for
Four Seasons Trailer Court
Sources of Synthetic Organic Chemicals

PWSID 210320.001

Contaminant Source Type	Contaminant Source ID	CS ID Tag	Zone	Risk Ranking for Analysis	Overall Rank After Analysis	Location	Map Number	Comments
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-34	A	Low	1	Between Elmwood and Driftwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-35	A	Low	2	Between Driftwood and Cranberry	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-36	A	Low	3	Between Cranberry and Birchwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-33	A	Low	4	Between Fleetwood and Elmwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-32	A	Low	5	Between Greenbriar and Fleetwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-4	A	Low	6	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-2	A	Low	7		2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-1	A	Low	8	between Greenbriar and Honeysuckle	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-3	A	Low	9	Peppertree Loop	2	
Residential Areas	R1	R1-1	A	Low	10	entire subdivision	3	23 Acres
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-10	A	Low		Donna	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-11	A	Low		Falke	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-12	A	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-13	A	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-5	A	Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-6	A	Low		Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-7	A	Low		Habicht	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-8	A	Low		between Habicht and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-9	A	Low		Sixth	2	
Septic systems (serves one or more single-family homes)	R2	R2-1	A	Very Low		Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-2	A	Very Low		Sixth	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-14	B	Low		Krane	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-15	B	Low		along Turpin	2	

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-16	B	Low		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-17	B	Low		along Lilas	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-18	B	Low		betwwn Donna and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-19	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-20	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-21	B	Low		along Elmrich	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-22	B	Low		along Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-24	B	Low		along Fern	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-25	B	Low		off Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-26	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-27	B	Low		along Third	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-28	B	Low		along Fredericks	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-29	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-30	B	Low		along Princess	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-31	B	Low		along Queens View	2	
Residential Areas	R1	R1-2	B	Low		entire subdivision	3	65 Acres
Septic systems (serves one or more single-family homes)	R2	R2-3	B	Very Low		Lilas and Donna	3	
Septic systems (serves one or more single-family homes)	R2	R2-4	B	Very Low		Markstrom	3	
Residential Areas	R1	R1-3	C	Low		entire subdivision	4	180 Acres
Septic systems (serves one or more single-family homes)	R2	R2-5	C	Very Low		Sixth and Patsy	4	
Septic systems (serves one or more single-family homes)	R2	R2-6	C	Very Low		Old Harbor	4	
Municipal or city parks (with green areas)	X4	X4-1	C	Very Low		Creekside Park	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D1		C	Low		48 sewer lines in Zone C	4	
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1	D	Low		Muldoon and Eleventh	5	

Contaminant Source Inventory and Risk Ranking for
Four Seasons Trailer Court
Sources of Other Organic Chemicals

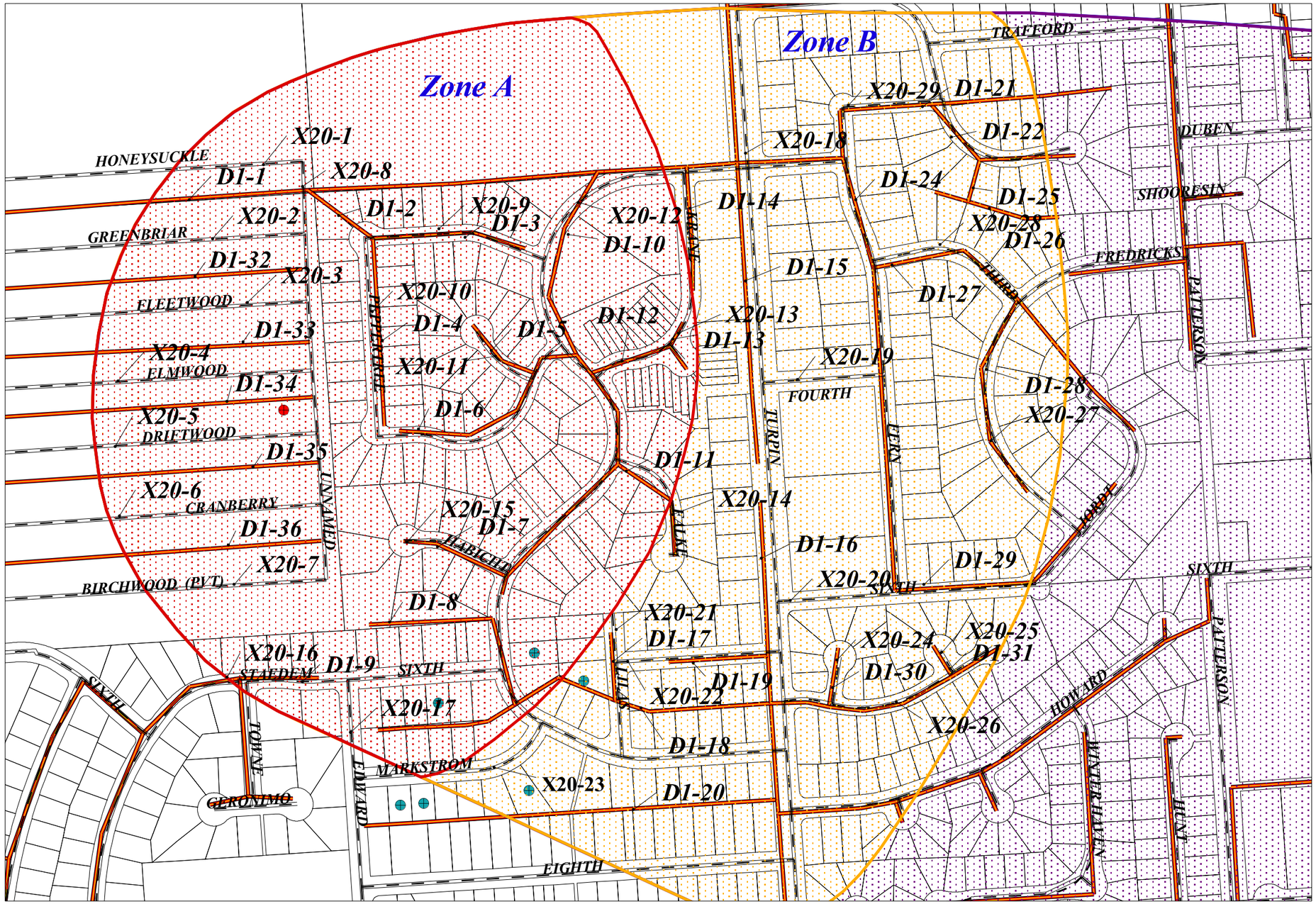
Contaminant Source Type	Contaminant Source ID	CS ID Tag	Zone	Risk Ranking for Analysis	Overall Rank After Analysis	Location	Map Number	Comments
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-34	A	Low	1	Between Elmwood and Driftwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-35	A	Low	2	Between Driftwood and Cranberry	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-36	A	Low	3	Between Cranberry and Birchwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-33	A	Low	4	Between Fleetwood and Elmwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-32	A	Low	5	Between Greenbriar and Fleetwood	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-4	A	Low	6	Peppertree Loop	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-2	A	Low	7		2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-1	A	Low	8	between Greenbriar and Honeysuckle	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-3	A	Low	9	Peppertree Loop	2	
Residential Areas	R1	R1-1	A	Low	10	entire subdivision	3	23 Acres
Construction trade areas and materials	C9	C9-1	A	Low		Stadem	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-8	A	Low		between Habicht and Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-16	A	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Very Low		Driftwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Very Low		Cranberry	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Very Low		Birchwood	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Very Low		Unnamed	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-16	B	Low		along Turpin	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-17	B	Low		along Lilas	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-18	B	Low		betwwn Donna and Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-19	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-20	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-21	B	Low		along Elmrich	2	

Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-22	B	Low		along Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-24	B	Low		along Fern	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-25	B	Low		off Dickerson	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-26	B	Low			2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-27	B	Low		along Third	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-28	B	Low		along Fredericks	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-29	B	Low		along Sixth	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-30	B	Low		along Princess	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D1	D1-31	B	Low		along Queens View	2	
Residential Areas	R1	R1-2	B	Low		entire subdivision	3	65 Acres
Highways and roads, paved (cement or asphalt)	X20	X20-18	B	Very Low		Turpin	2	
Highways and roads, paved (cement or asphalt)	X20	X20-19	B	Very Low		Fourth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-20	B	Very Low		Sixth	2	
Highways and roads, paved (cement or asphalt)	X20	X20-21	B	Very Low		Lilas	2	
Highways and roads, paved (cement or asphalt)	X20	X20-22	B	Very Low		Sixth Ave	2	
Hardware stores	C17	C17-1	C	Low		Duben	4	
Appliance repair shops	C3	C3-1	C	Low		Trafford	4	
Construction trade areas and materials	C9	C9-2	C	Low		Fourth and Patterson	4	
Residential Areas	R1	R1-3	C	Low		entire subdivision	4	180 Acres
Motor vehicle/general storage yards/facilities	X27	X27-1	C	Low		Fourth	4	
Highways and roads, paved (cement or asphalt)	X20		C	Very Low		28 roads in Zone C	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D1		C	Low		48 sewer lines in Zone C	4	
Gasoline stations (without repair shop)	C15	C15-1	D	Low		Muldoon and Third	5	
Gasoline stations (with repair shop)	C16	C16-2	D	Medium		Muldoon and Sixth	5	

APPENDIX C

Four Seasons Trailer Court
Drinking Water Protection Area
and Potential & Existing Contaminant Sources

Drinking Water Protection Area for Four Seasons Trailer Court and Potential & Existing Sources of Contamination



1000 0 1000 Feet

PWSID 210320.001

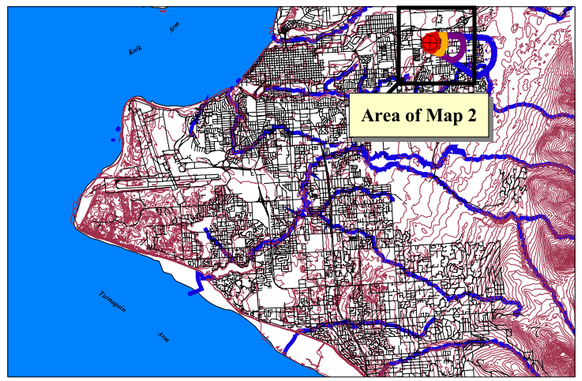
Zone A Protection Area
- Several Months Travel Time

Zone B Protection Area
- Less Than 2 Years Travel Time

Zone C Protection Area
- Less Than 5 Years Travel Time

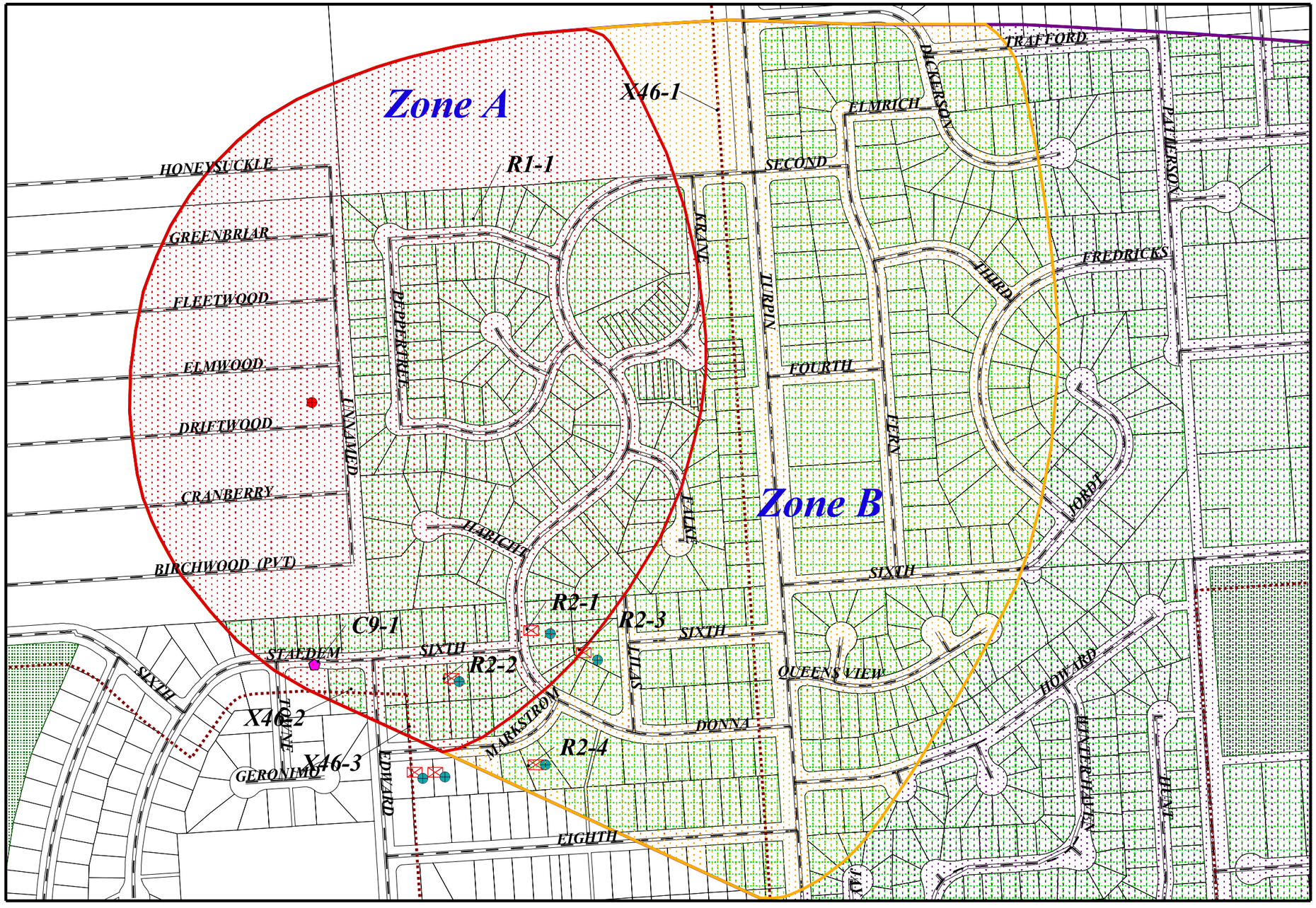
Zone D Protection Area
- Less Than 10 Years Travel Time
- Public Water System
- Roads (X20)
- Private Wells
- Sewers (D1)
- MOA Land Parcels

N W E S



Map 2

Drinking Water Protection Area for Four Seasons Trailer Court and Potential & Existing Sources of Contamination



1000 0 1000 Feet

- Public Water System

Zone A Protection Area
- Several Months Travel Time

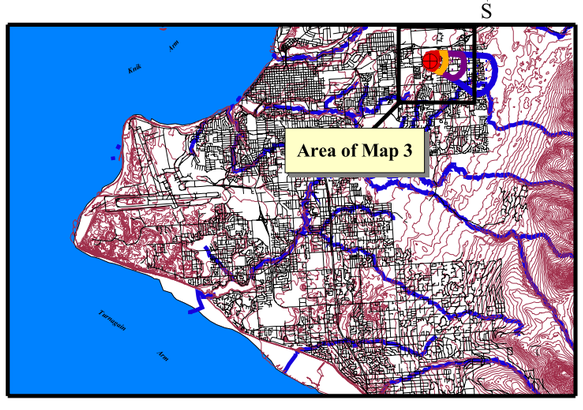
Zone B Protection Area
- Less Than 2 Years Travel Time

Zone C Protection Area
- Less Than 5 Years Travel Time

Zone D Protection Area
- Less Than 10 Years Travel Time

Potential and Existing Contaminant Sources
- Construction trade areas (C9)
- Private Wells
- Septics (R-2)
- Trails (X46)
- Roads
- Parks
- MOA Land Parcels
- Residential lawns (R1)

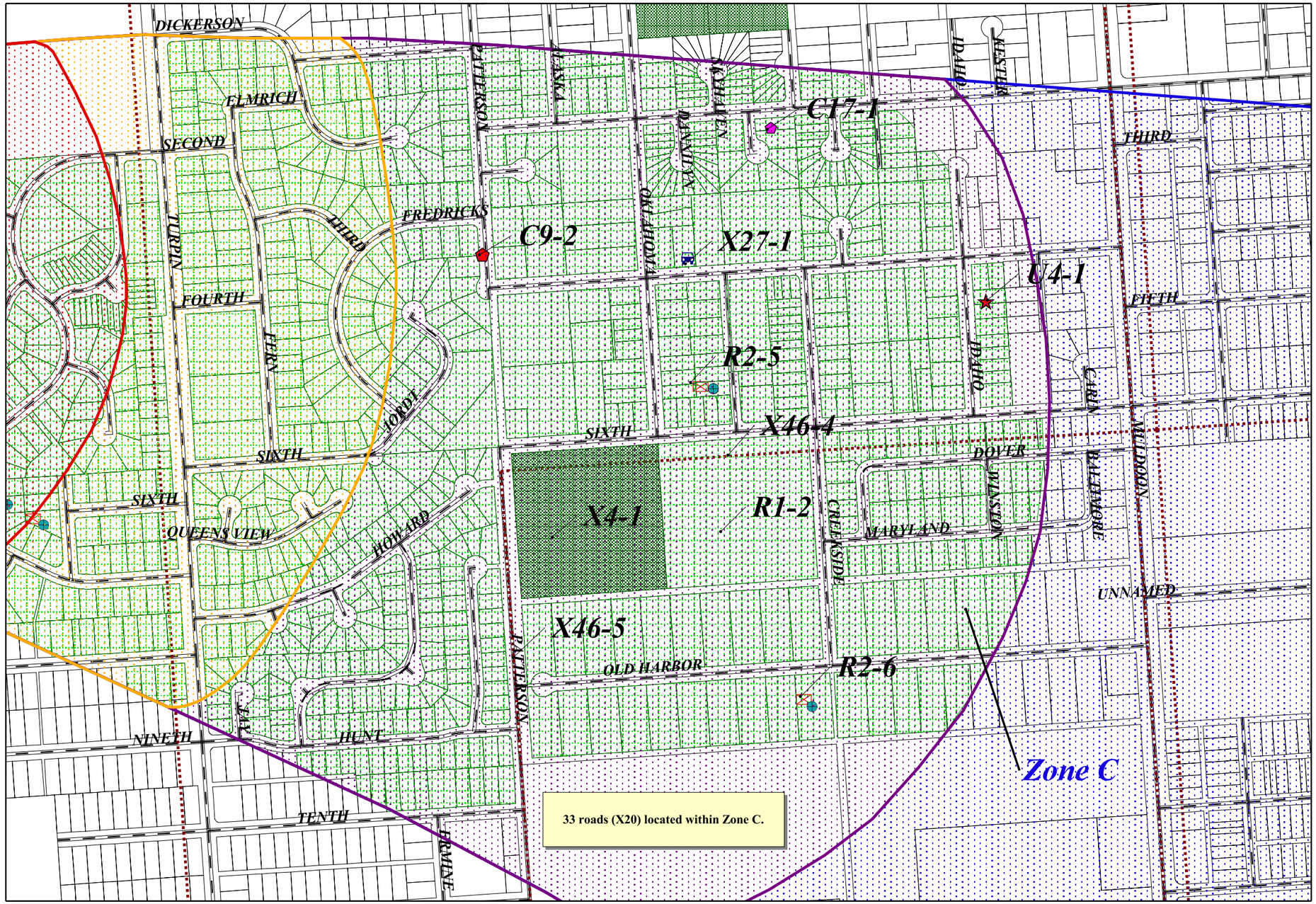
N W E S



PWSID 210320.001

Map 3

Drinking Water Protection Area for Four Seasons Trailer Court and Potential & Existing Contaminant Sources



PWSID 210320.001

Zone A Protection Area
- Several Months Travel Time

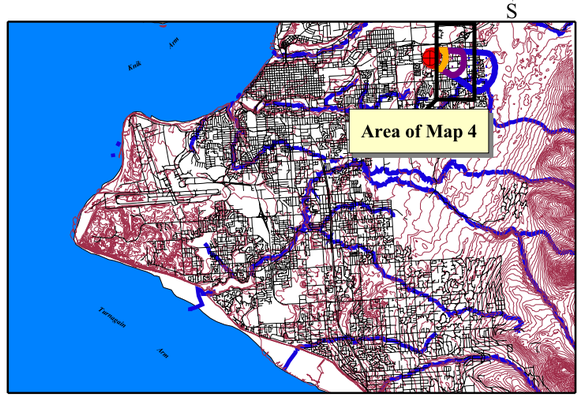
Zone B Protection Area
- Less Than 2 Years Travel Time

Zone C Protection Area
- Less Than 5 Years Travel Time

Zone D Protection Area
- Less Than 10 Years Travel Time

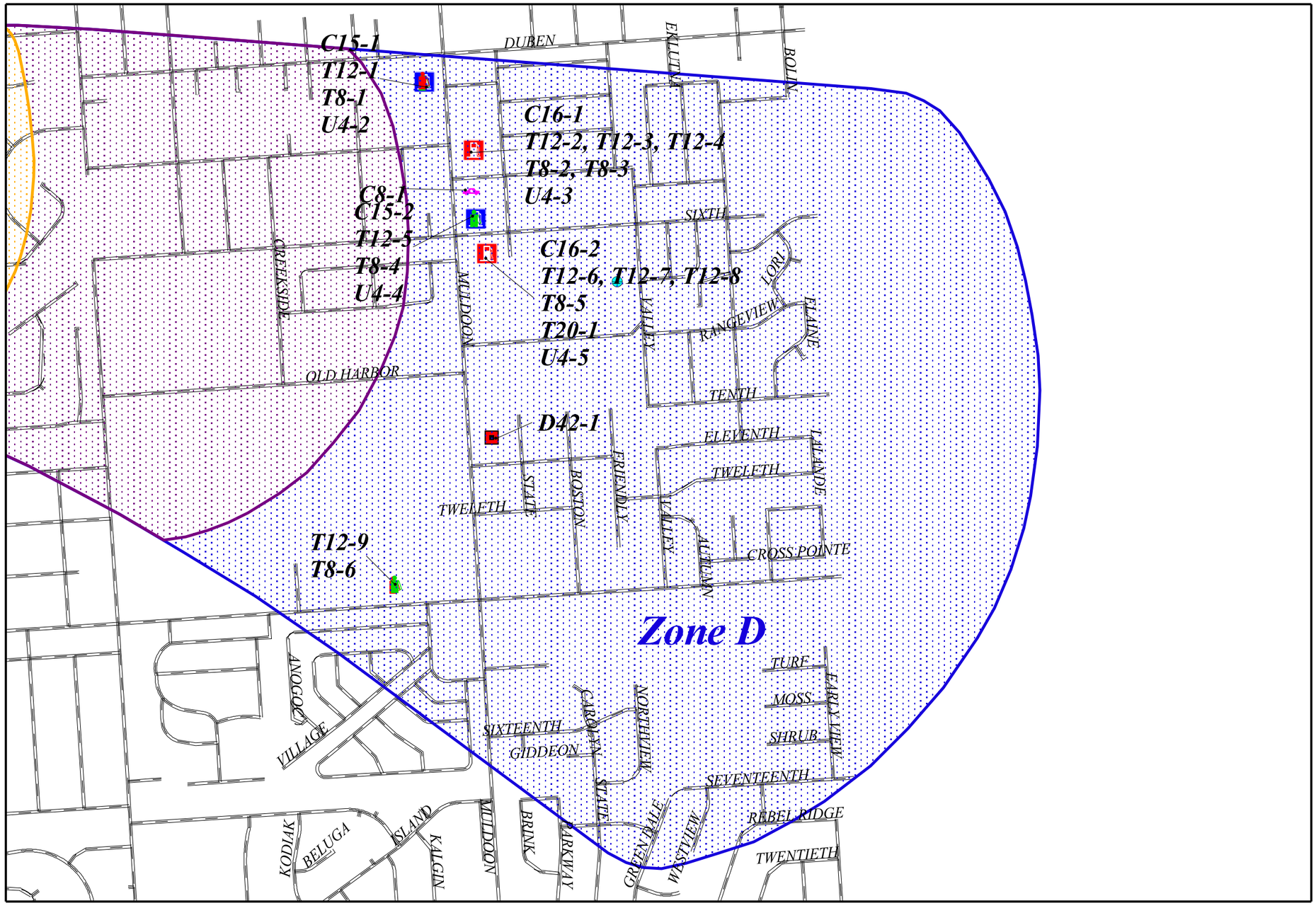
Potential and Existing Contaminant Sources
- Hardware store (C17)
- Construction trade areas (C9)
- Contaminated sites, DEC recognized (U4)
- Motor vehicle/general storage yards (X27)
- Private Wells
- Parks (X4)
- Residential lawns (R1)
- Septics (R-2)
- Trails (X46)
- Roads
- MOA Land Parcels

N
W E
S



Map 4

Drinking Water Protection Area for Four Seasons Trailer Court and Potential & Existing Sources of Contamination



2000 0 2000 Feet

Zone A Protection Area
- Several Months Travel Time

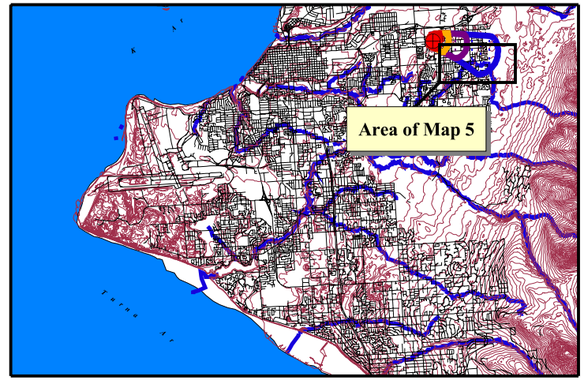
Zone B Protection Area
- Less Than 2 Years Travel Time

Zone C Protection Area
- Less Than 5 Years Travel Time

Zone D Protection Area
- Less Than 10 Years Travel Time

Potential and Existing Contaminant Sources
- Gasoline stations (without repair shops) (C15)
- Gasoline stations (with repair shops) (C16)
- Car wash (C8)
- Injection wells (Class V) motor vehicle waste (D42)
- Tanks, gasoline (underground) (T12)
- Tanks, lubricants, petroleum products (underground) (T20)
- Tanks, diesel (underground) (T8)
- Contaminated sites, DEC recognized (U4)
- Private Wells
- Roads

N W E S



PWSID 210320.001

Map 5

APPENDIX D

Vulnerability Analysis for Four Seasons Trailer Court's Public Drinking Water Source

Chart 1. Susceptibility of the wellhead – Four Seasons Trailer Court

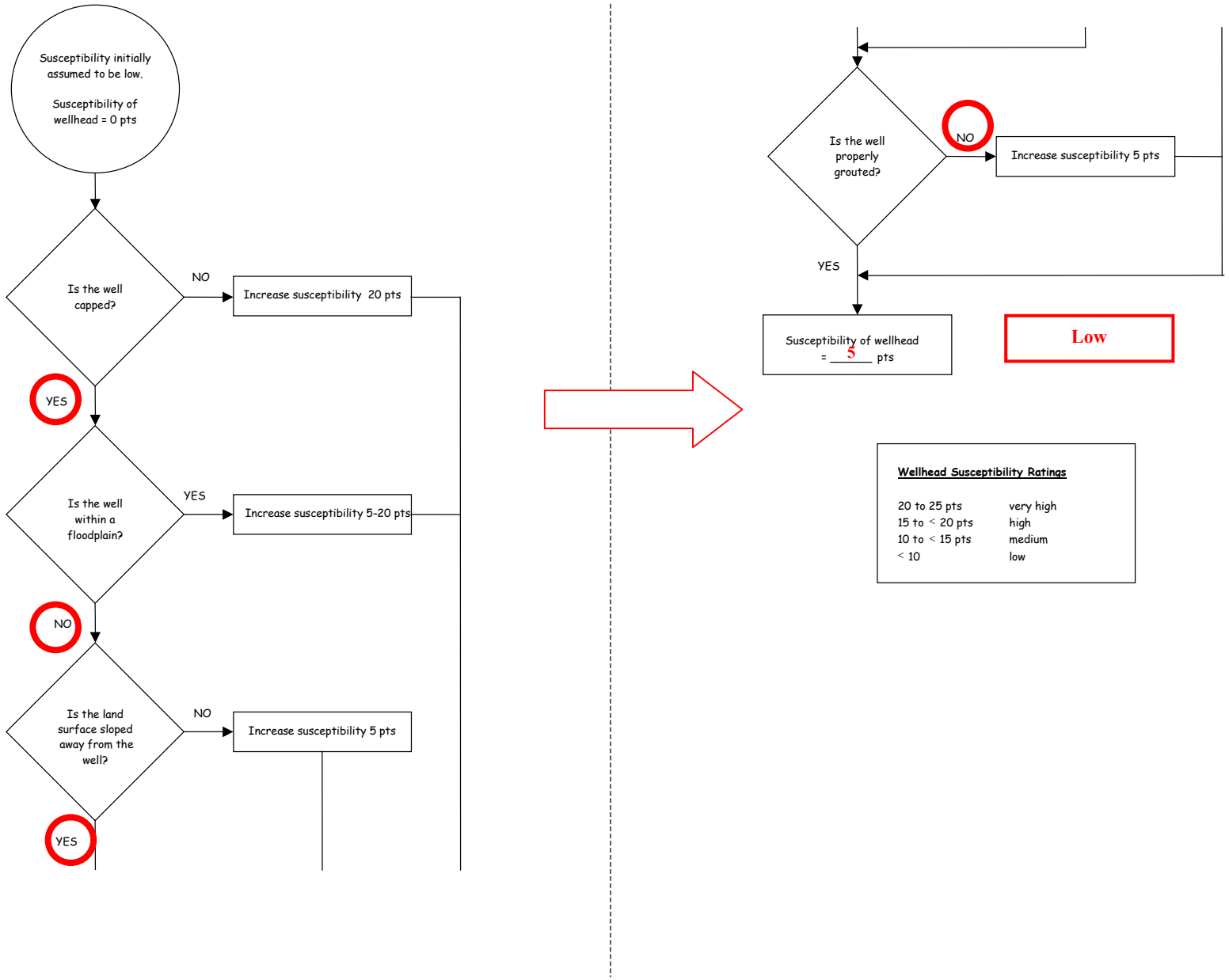
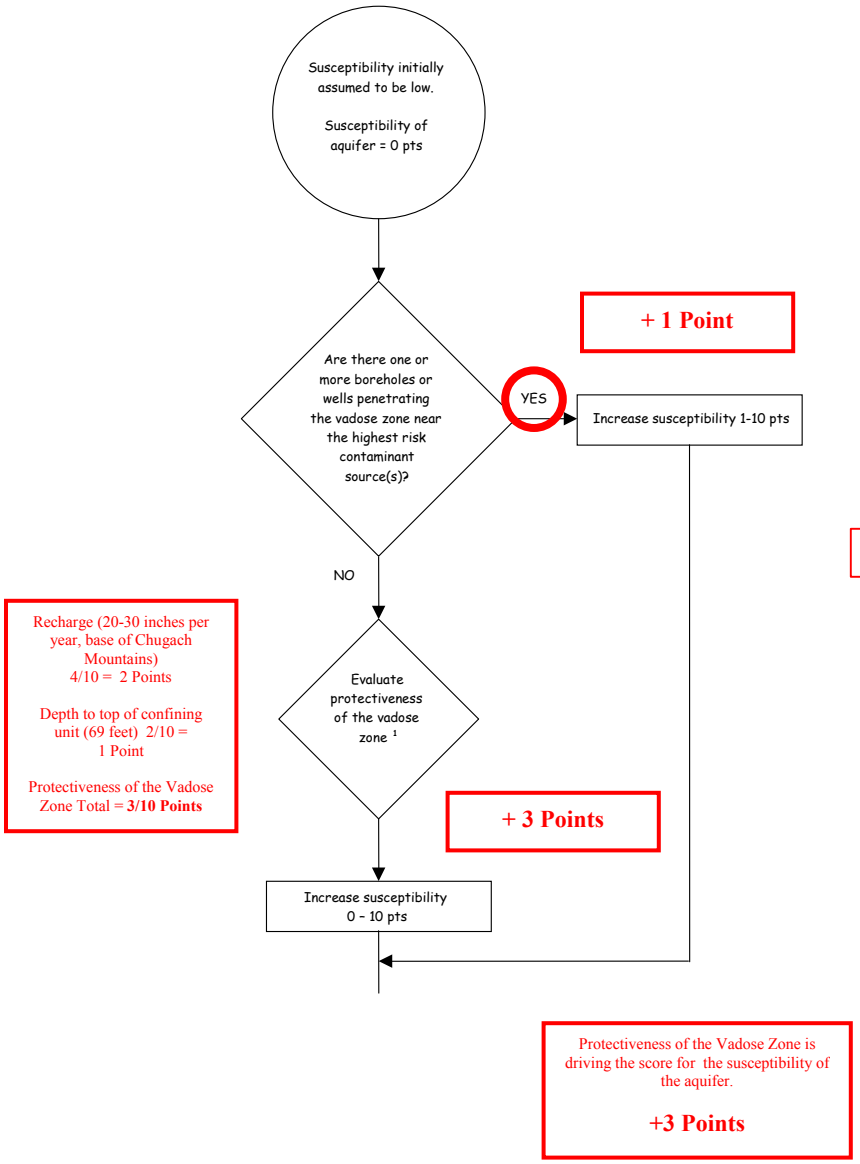
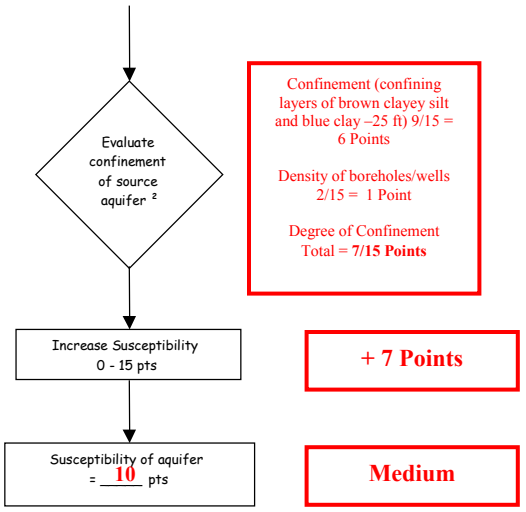


Chart 2. Susceptibility of the aquifer – Four Seasons Trailer Court



There was no well log available for Four Seasons' well. Therefore, geologic information for this drinking water source was gathered from well logs for wells within ½ mile of Four Seasons' well.



1. **Protectiveness of the Vadose Zone**
   - net recharge (function of precipitation, slope of land surface, & permeability of soils) [0 – 10 pts; 50% weight]
   - depth to water table (unconfined aquifer) or top of confining layer (confined aquifer) [interpolate linearly: 100' – 20', 0 – 5 pts; 20' – 0', 5 – 10 pts; 50% weight]

2. **Degree of Confinement**
   - confined verses unconfined aquifer [confined: K ≤ 10^{-6} cm/s, minimum thickness of at least one layer = 20 ft, interpolate linearly 100' – 20', 0 – 10 pts; unconfined = 15 pts; 65% weight]
   - density of boreholes and wells penetrating the confining layer (confined aquifer) or the water table (unconfined aquifer) [confined: 0 – 15 pts; unconfined = 15 pts; 35% weight]

Aquifer Susceptibility Ratings

20 to 25 pts	very high
15 to < 20 pts	high
10 to < 15 pts	medium
< 10	low

Medium

Chart 3. Contaminant risks for Four Seasons Trailer Court – Bacteria & Viruses

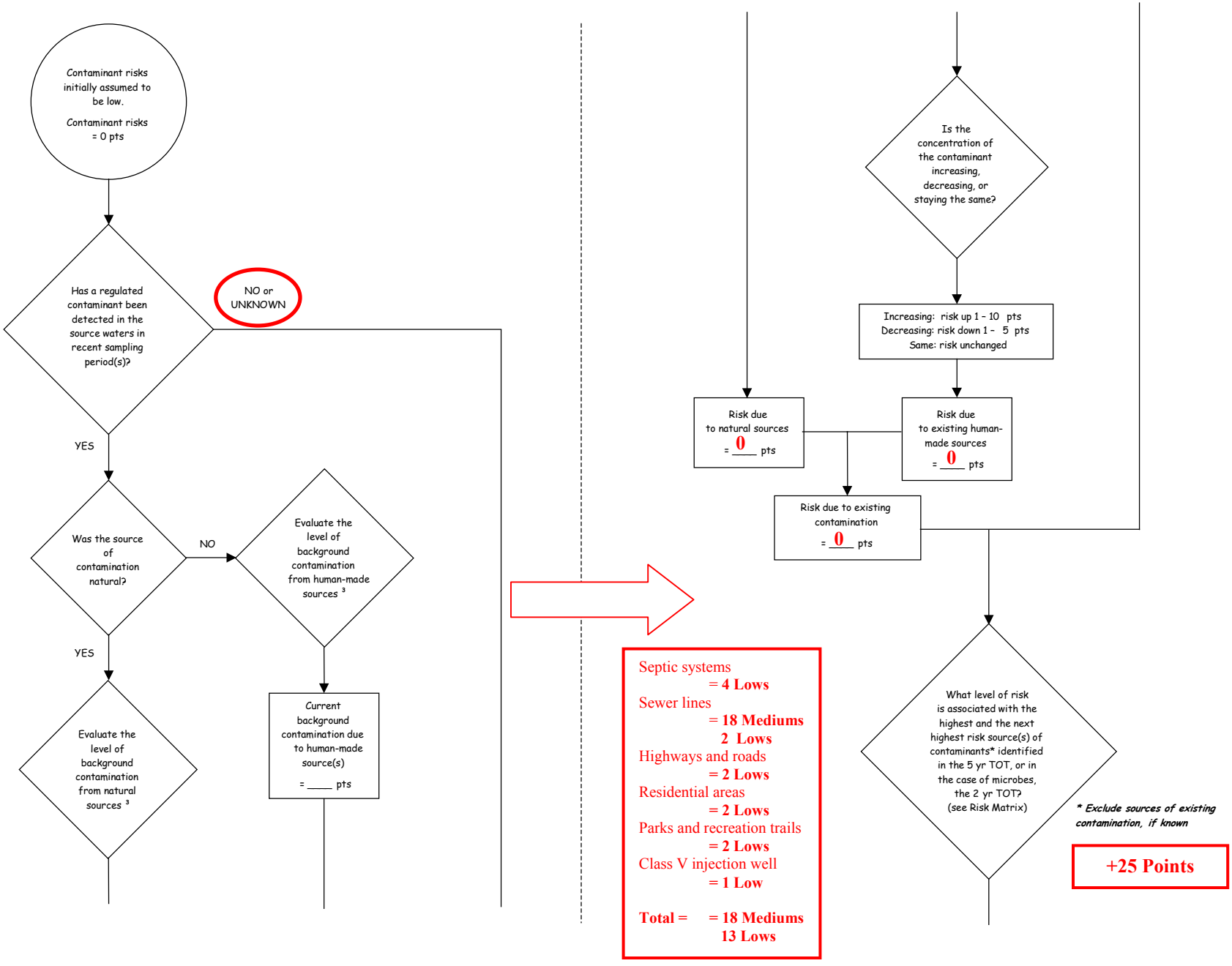


Chart 3. Contaminant risks for Four Seasons Trailer Court – Bacteria & Viruses (Continued)

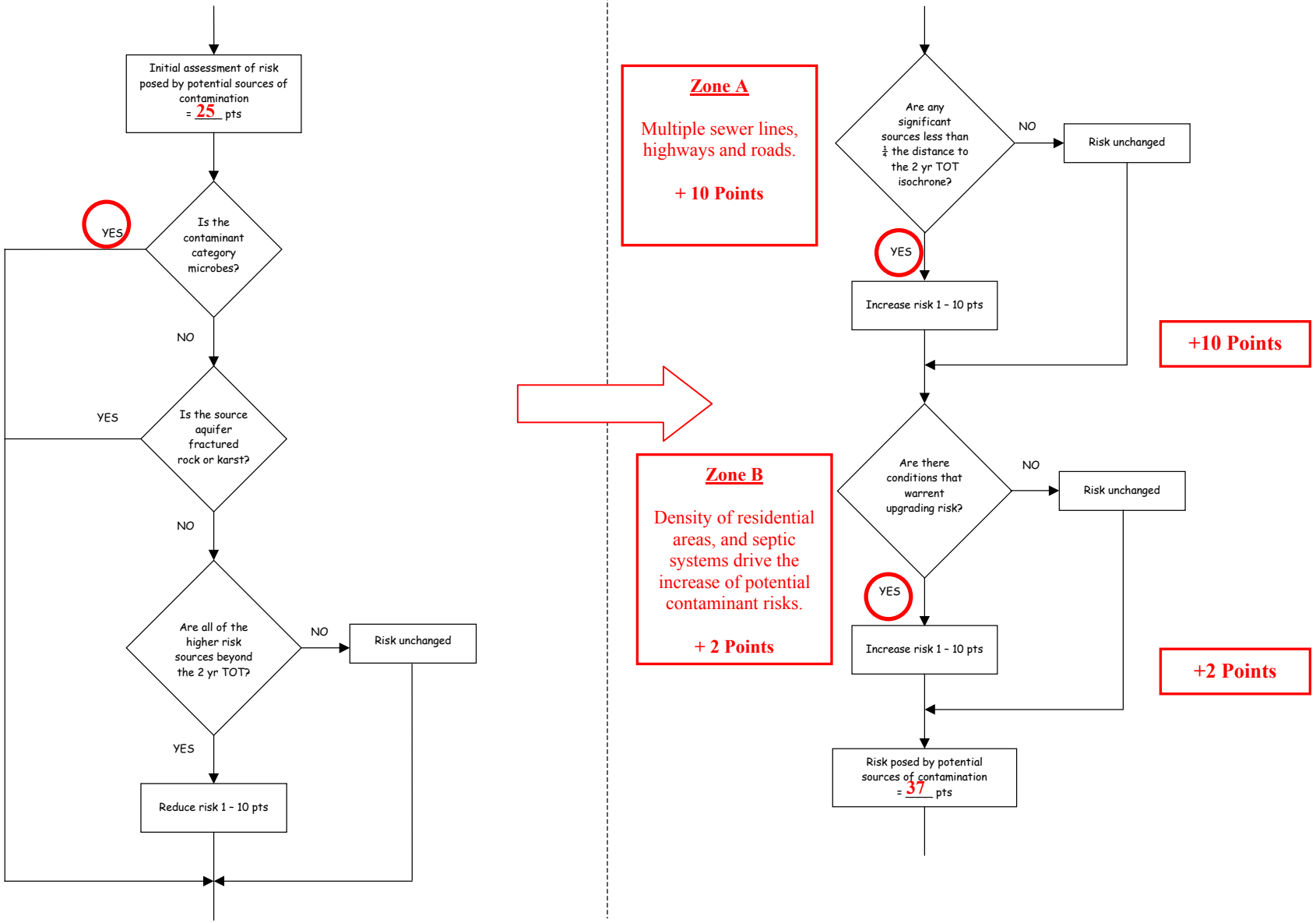
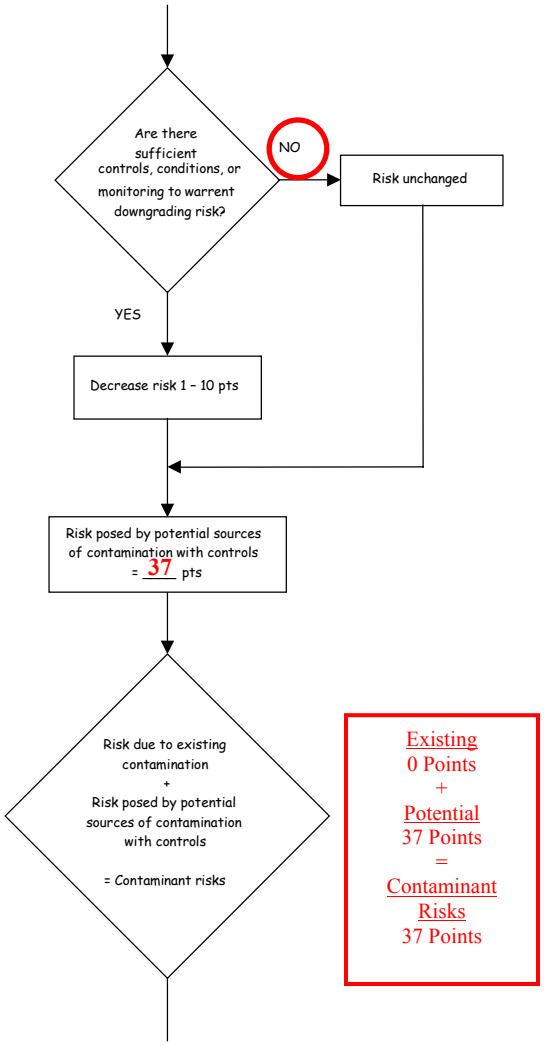
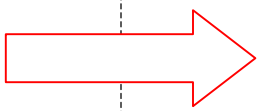
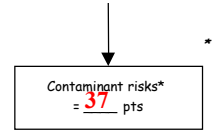


Chart 3. Contaminant risks for Four Seasons Trailer Court – Bacteria & Viruses (Continued)



Existing
0 Points
+
Potential
37 Points
=
Contaminant Risks
37 Points





** Truncate risk at 50 pts*

High

3. Level of Background Contamination

> MCL	21 - 50 pts
0.5 MCL to < MCL	11 - 20 pts
0.2 MCL to < 0.5 MCL	6 - 10 pts
'detect' to < 0.2 MCL	0 - 5 pts

Contaminant Risk Ratings

40 to 50 pts	very high
30 to < 40 pts	high
20 to < 30 pts	medium
< 20	low

Table 1. Risk Matrix for Contaminant Sources for Four Seasons Trailer Court – Bacteria & Viruses

Level of Risk Associated with the Highest Risk Sources

Next Highest Risk Sources(s)

Septic systems, sewer lines, highways and roads, residential areas, parks and recreation trails, class V injection well	**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

Chart 4. Vulnerability analysis for Four Seasons Trailer Court – Bacteria & Viruses

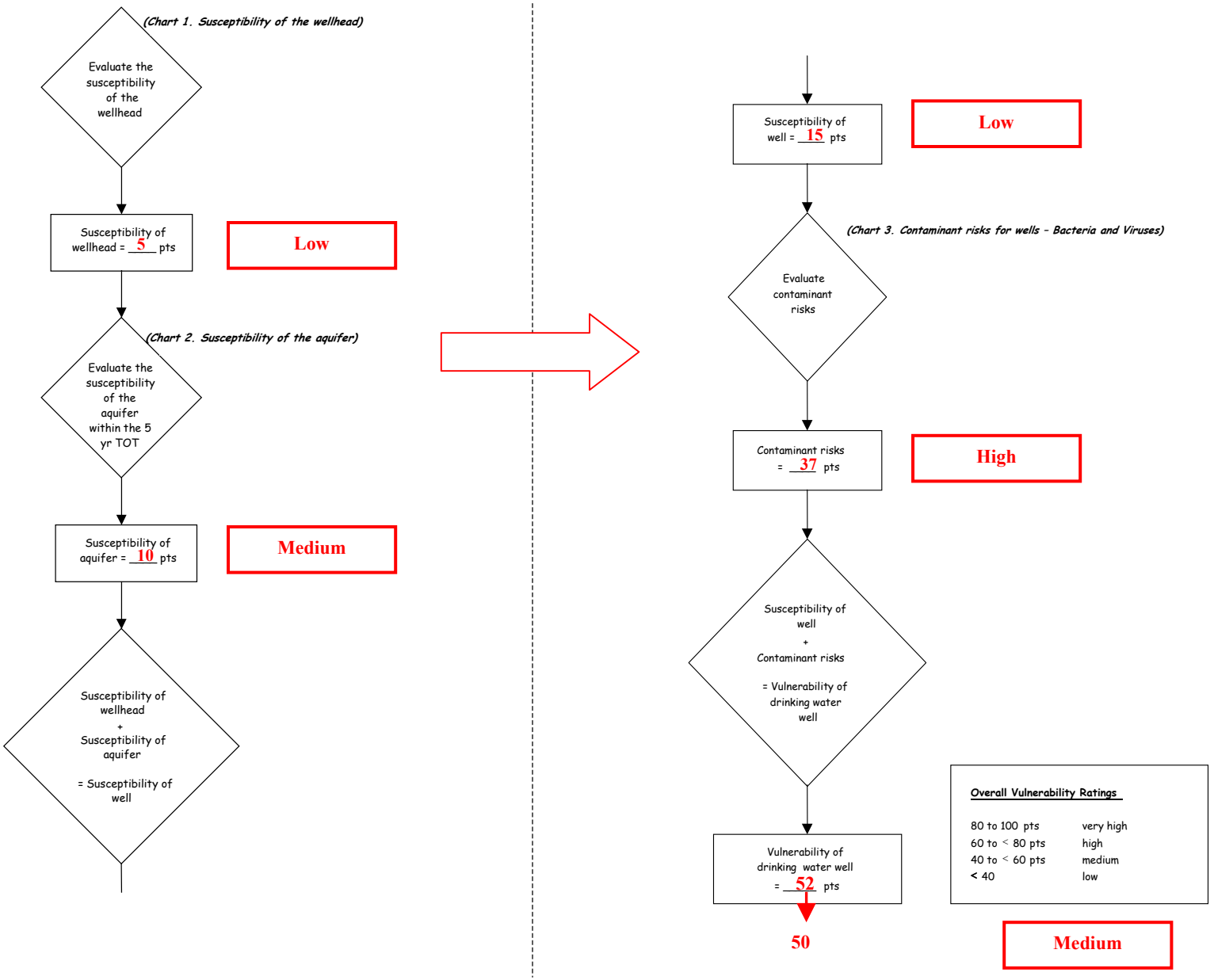


Chart 5. Contaminant risks for Four Seasons Trailer Court – Nitrates and Nitrites

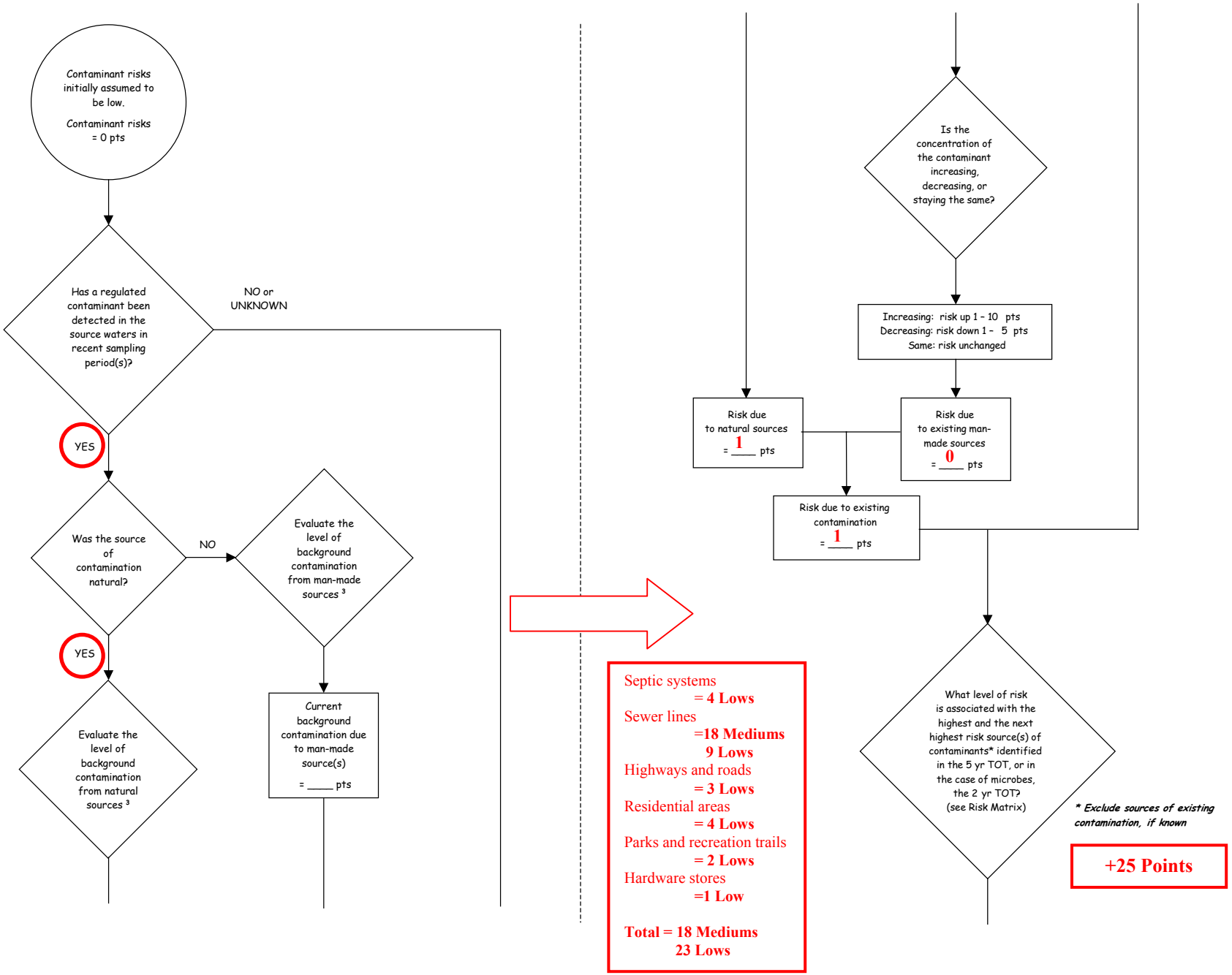


Chart 5. Contaminant risks for Four Seasons Trailer Court – Nitrates and Nitrites (Continued)

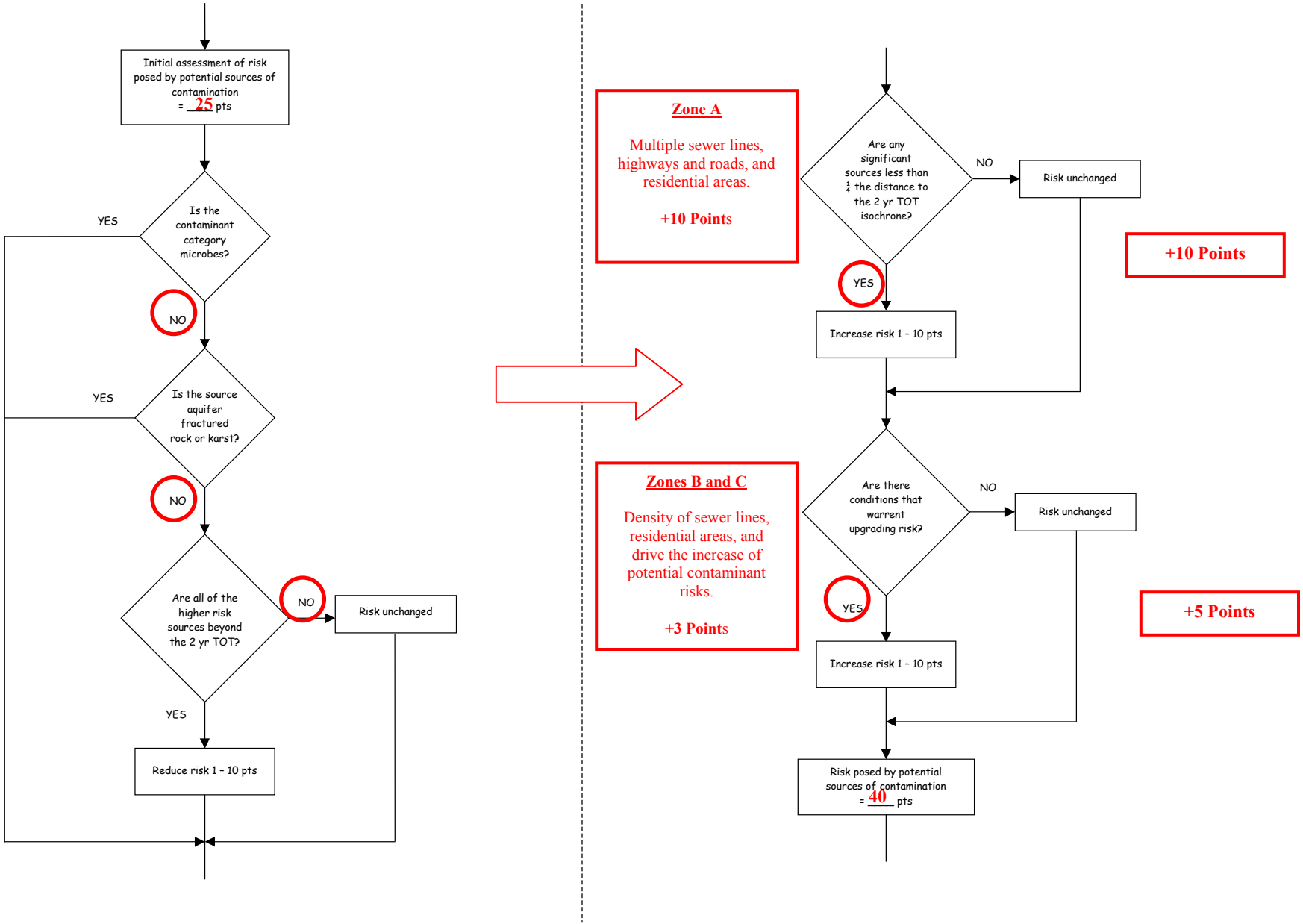
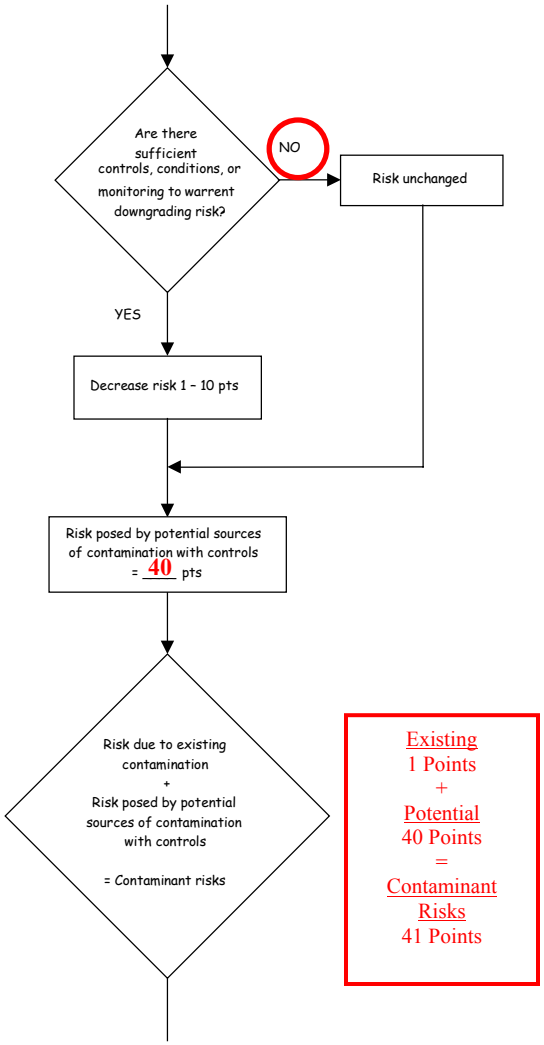
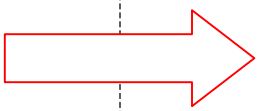
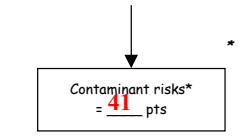


Chart 5. Contaminant risks for Four Seasons Trailer Court – Nitrates and Nitrites (Continued)



Existing
1 Points
+
Potential
40 Points
=
Contaminant
Risks
41 Points





** Truncate risk at 50 pts*

Very High

3. Level of Background Contamination

> MCL	50 pts
0.5 MCL to < MCL	20 pts
0.2 MCL to < 0.5 MCL	10 pts
'detect' to < 0.2 MCL	5 pts

Contaminant Risk Ratings

40 to 50 pts	very high
30 to < 40 pts	high
20 to < 30 pts	medium
< 20	low

Nitrate
0.20 mg/L on 03/27/01
0.14 mg/L on 05/08/95

Maximum Contaminant Level (MCL) = 10mg/L

0.2/10 or 0.02% of MCL

+1 Point

Table 2. Risk Matrix for Contaminant Sources for Four Seasons Trailer Court – Nitrates and Nitrites

Level of Risk Associated with the Highest Risk Sources

Next Highest Risk Sources(s)

Septic systems, sewer lines, highwyas and roads, residential areas, parks and recreation trails, hardware strores	**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

Chart 6. Vulnerability analysis for Four Seasons Trailer Court – Nitrates and Nitrites

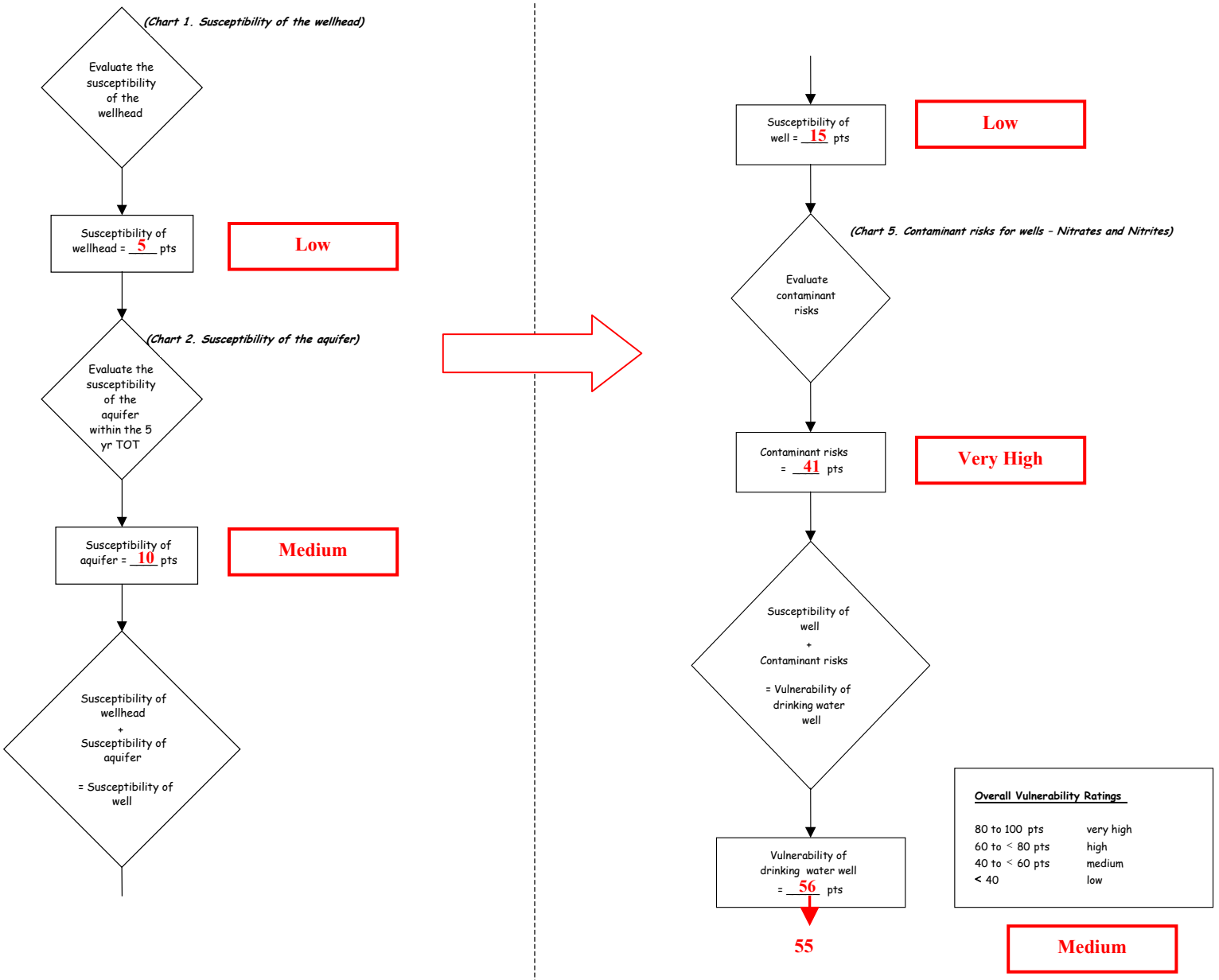


Chart 7. Contaminant risks for Four Seasons Trailer Court – Volatile Organic Chemicals

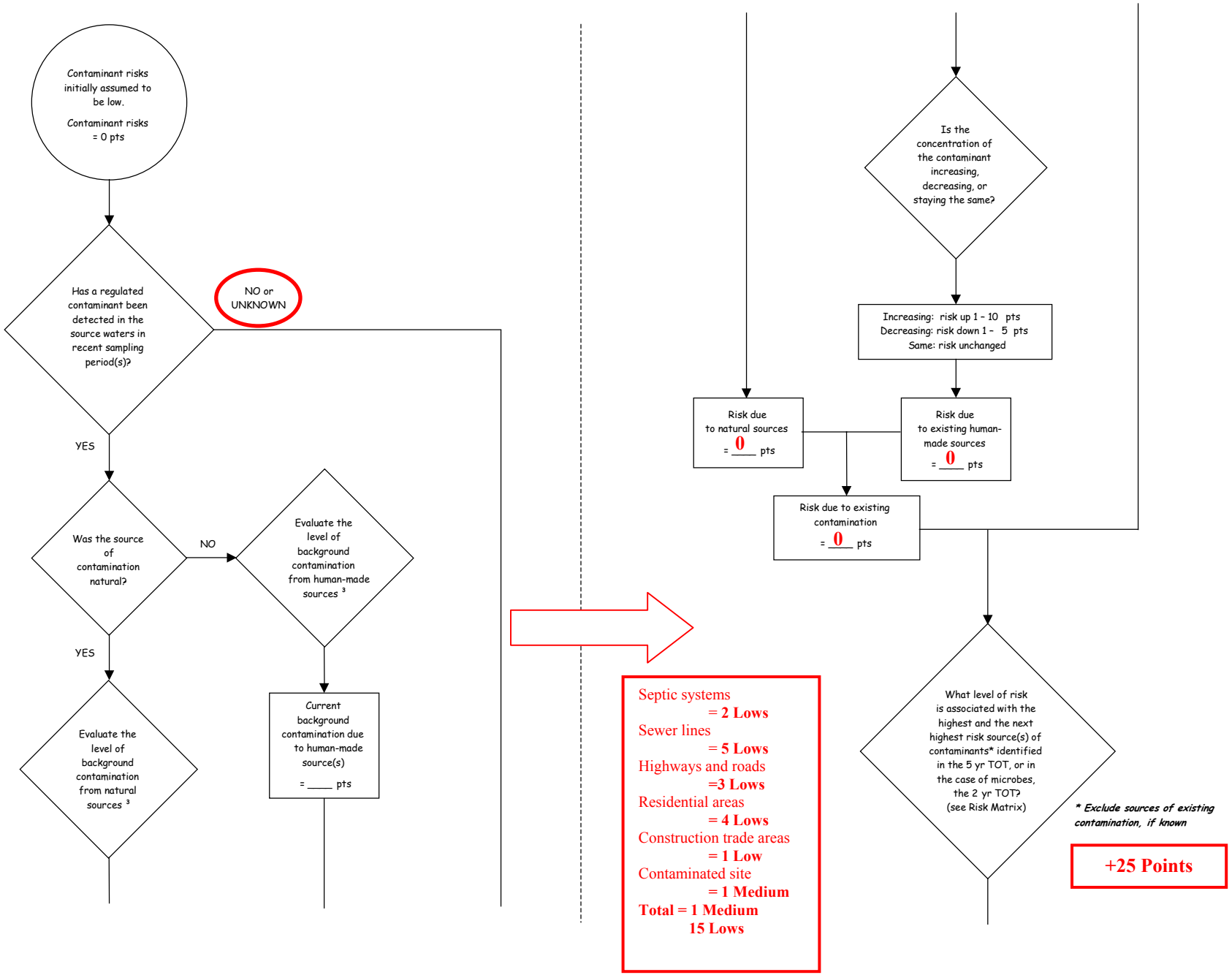
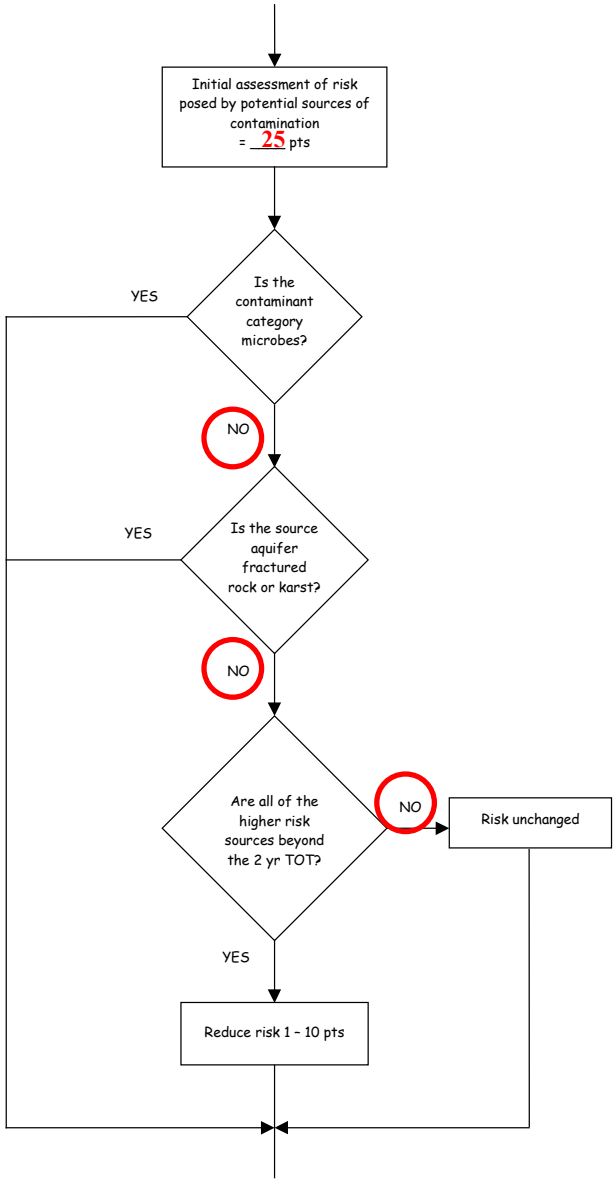


Chart 7. Contaminant risks for Four Seasons Trailer Court – Volatile Organic Chemicals (Continued)



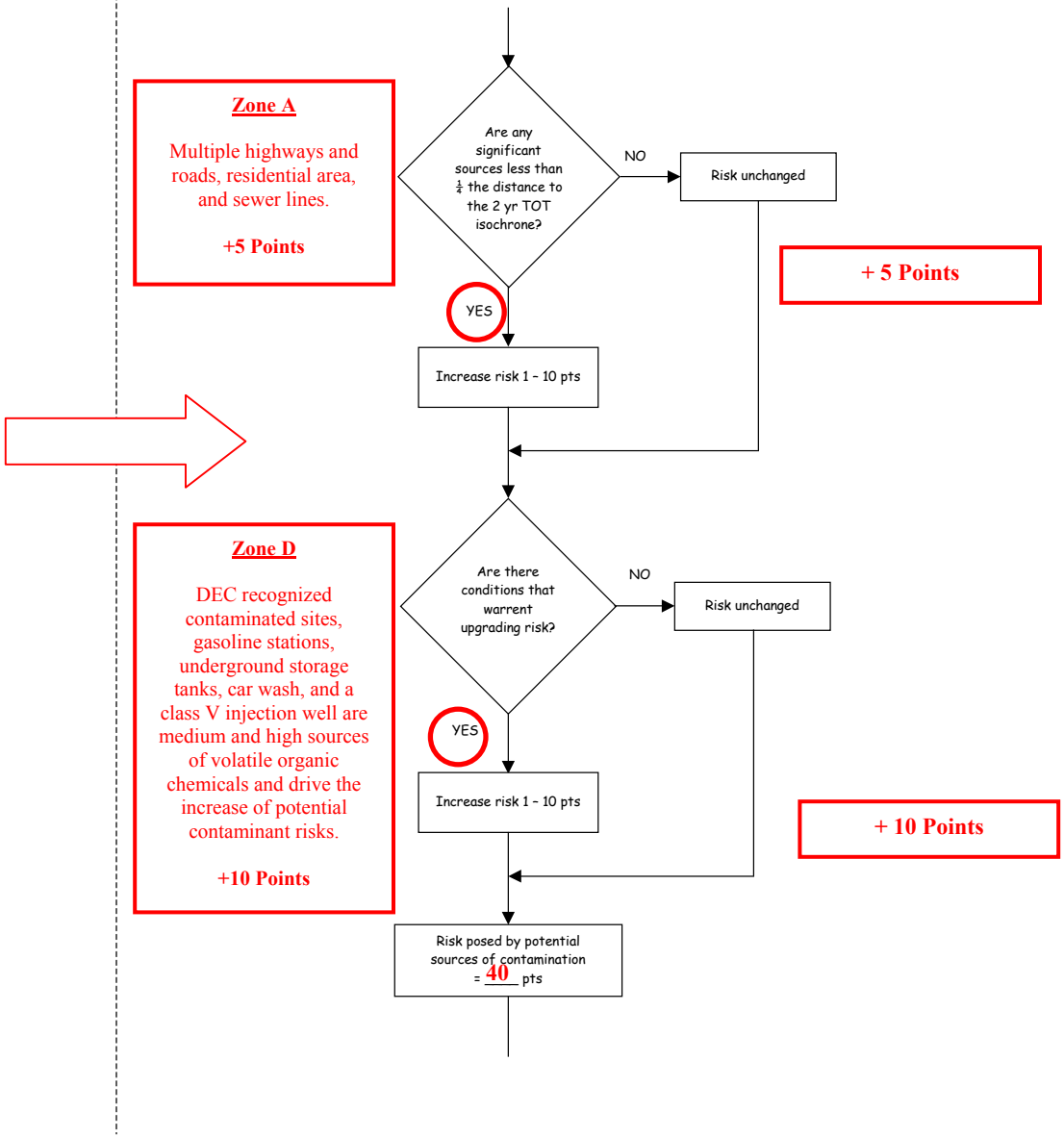
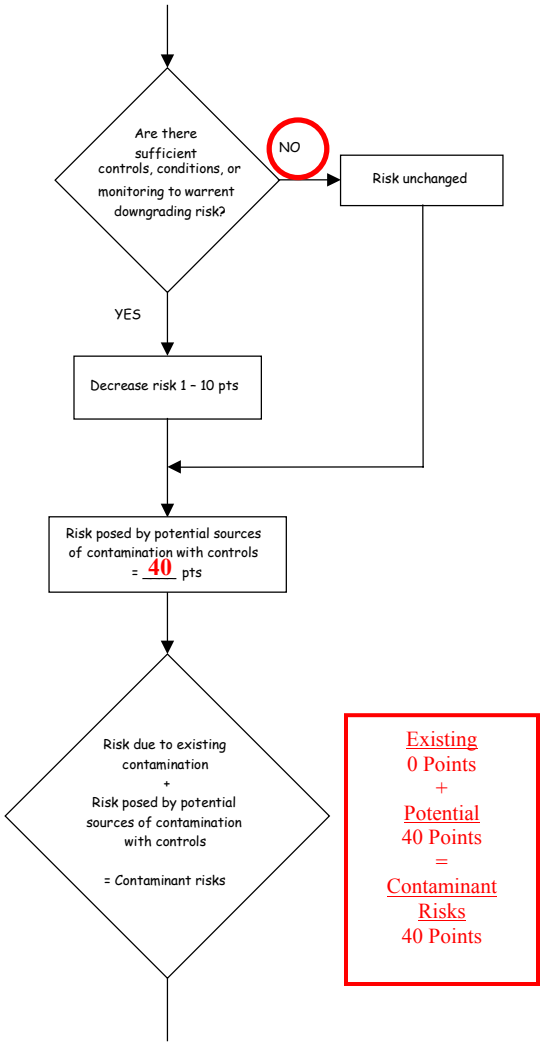
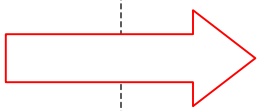
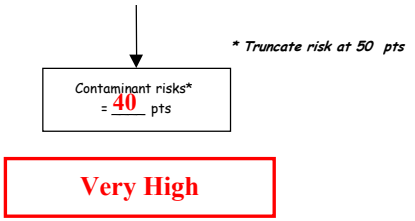


Chart 7. Contaminant risks for Four Seasons Trailer Court – Volatile Organic Chemicals (Continued)



Existing
0 Points
+
Potential
40 Points
=
Contaminant
Risks
40 Points





3. Level of Background Contamination

> MCL	21 - 50 pts
0.5 MCL to < MCL	11 - 20 pts
0.2 MCL to < 0.5 MCL	6 - 10 pts
'detect' to < 0.2 MCL	0 - 5 pts

Contaminant Risk Ratings

40 to 50 pts	very high
30 to < 40 pts	high
20 to < 30 pts	medium
< 20	low

Table 3. Risk Matrix for Contaminant Sources for Four Seasons Trailer Court – Volatile Organic Chemicals

Level of Risk Associated with the Highest Risk Sources

Next Highest Risk Sources(s)	Contaminated sites, septic systems, sewer lines, highways and roads, residential areas, construction trade areas	**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

Chart 8. Vulnerability analysis for Four Seasons Trailer Court – Volatile Organic Chemicals

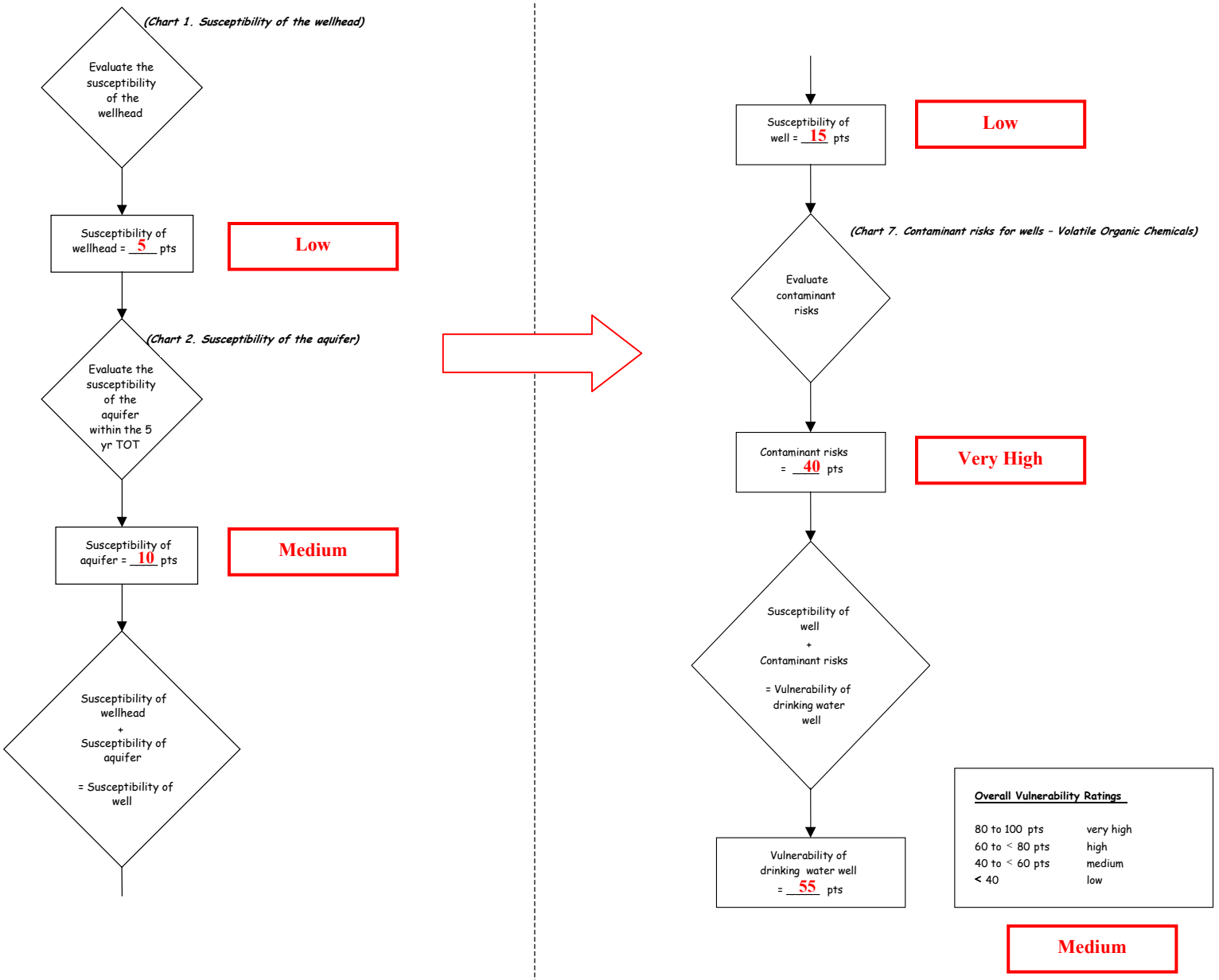


Chart 9. Contaminant risks for Four Seasons Trailer Court – Heavy Metals, Cyanide and Other Inorganic Chemicals

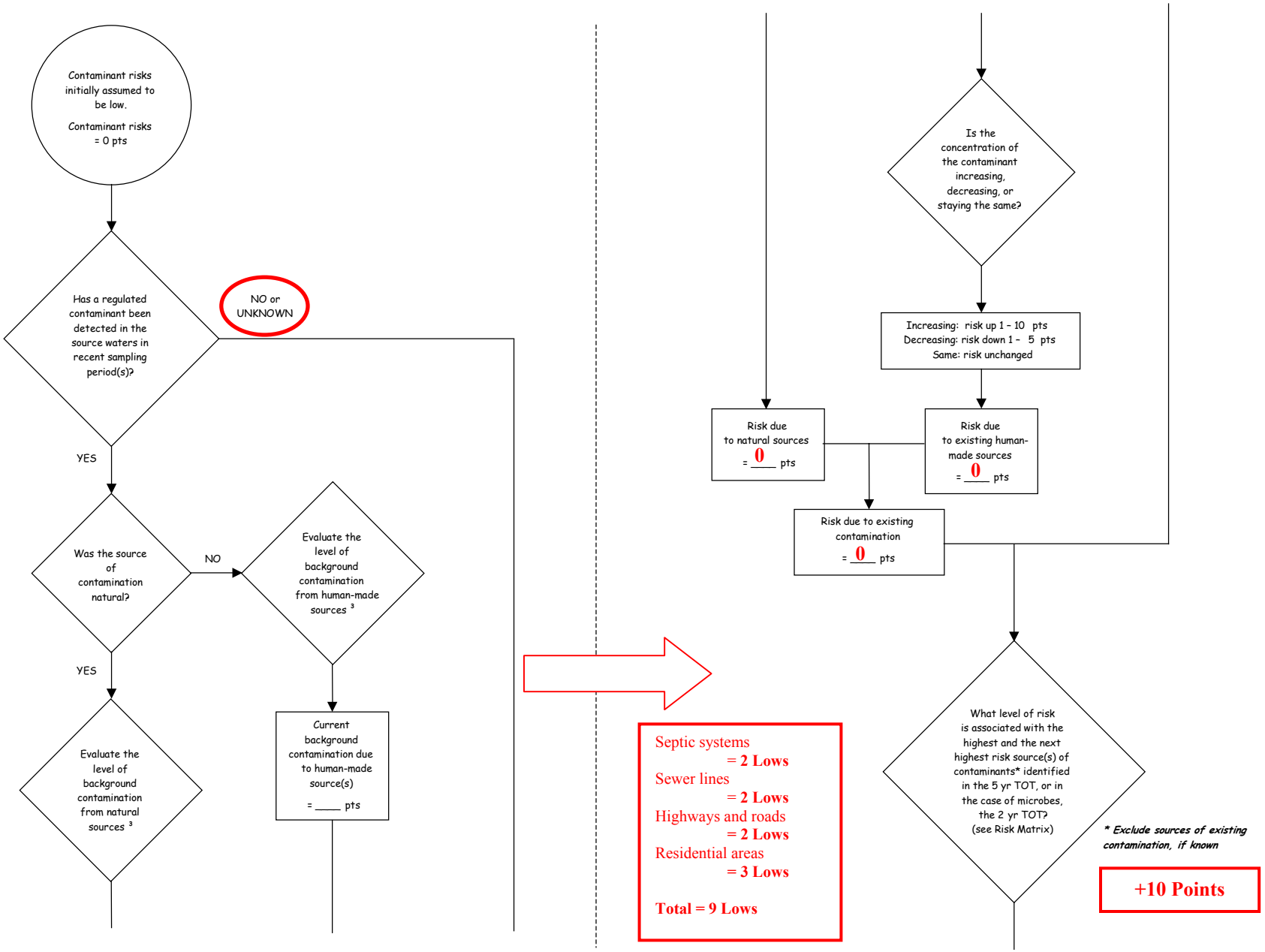


Chart 9. Contaminant risks for Four Seasons Trailer Court – Heavy Metals, Cyanide and Other Inorganic Chemicals (Continued)

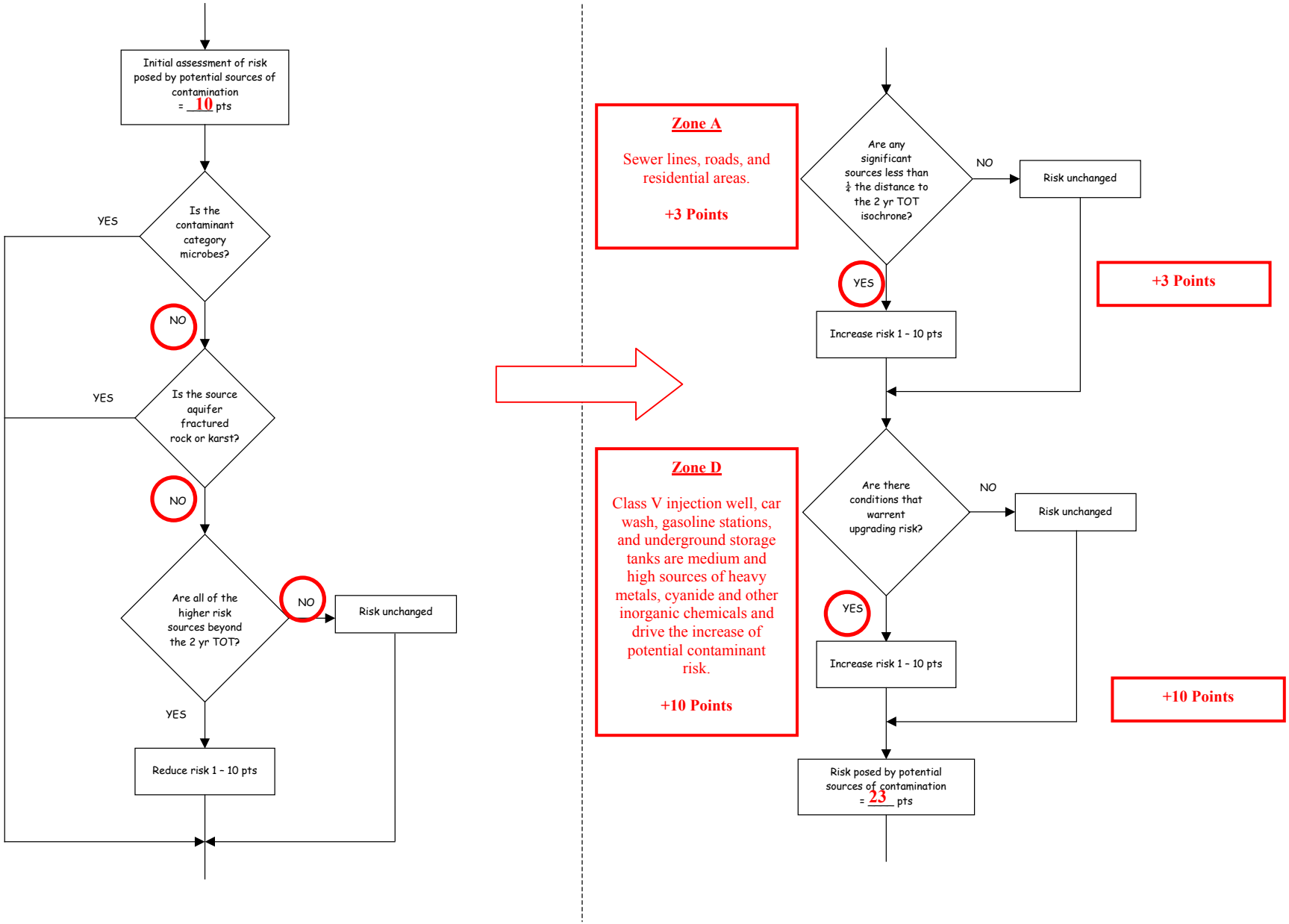
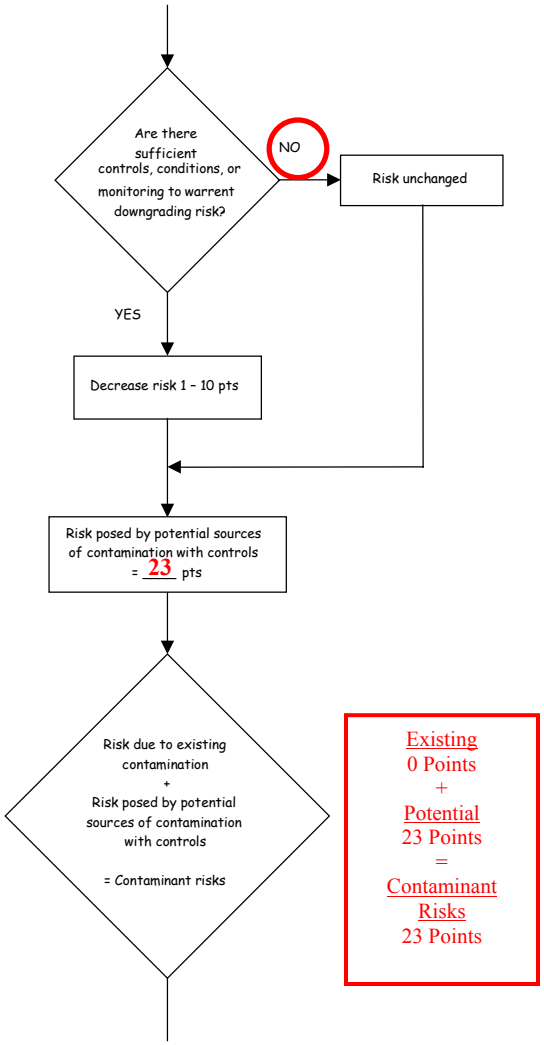
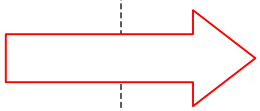


Chart 9. Contaminant risks for Four Seasons Trailer Court – Heavy Metals, Cyanide and Other Inorganic Chemicals (Continued)



Existing
0 Points
+
Potential
23 Points
=
Contaminant Risks
23 Points



** Truncate risk at 50 pts*

Contaminant risks* = 23 pts

Medium

3. Level of Background Contamination

> MCL	21 - 50 pts
0.5 MCL to < MCL	11 - 20 pts
0.2 MCL to < 0.5 MCL	6 - 10 pts
'detect' to < 0.2 MCL	0 - 5 pts

Contaminant Risk Ratings

40 to 50 pts	very high
30 to < 40 pts	high
20 to < 30 pts	medium
< 20	low

Table 4. Risk Matrix for Contaminant Sources for Four Seasons Trailer Court – Heavy Metals, Cyanide and Other Inorganic Chemicals

Level of Risk Associated with the Highest Risk Sources

Next Highest Risk Sources(s)	Septic systems, sewer lines, highways and roads, residential areas	**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

Chart 10. Vulnerability analysis for Four Seasons Trailer Court – Heavy Metals, Cyanide and Other Inorganic Chemicals

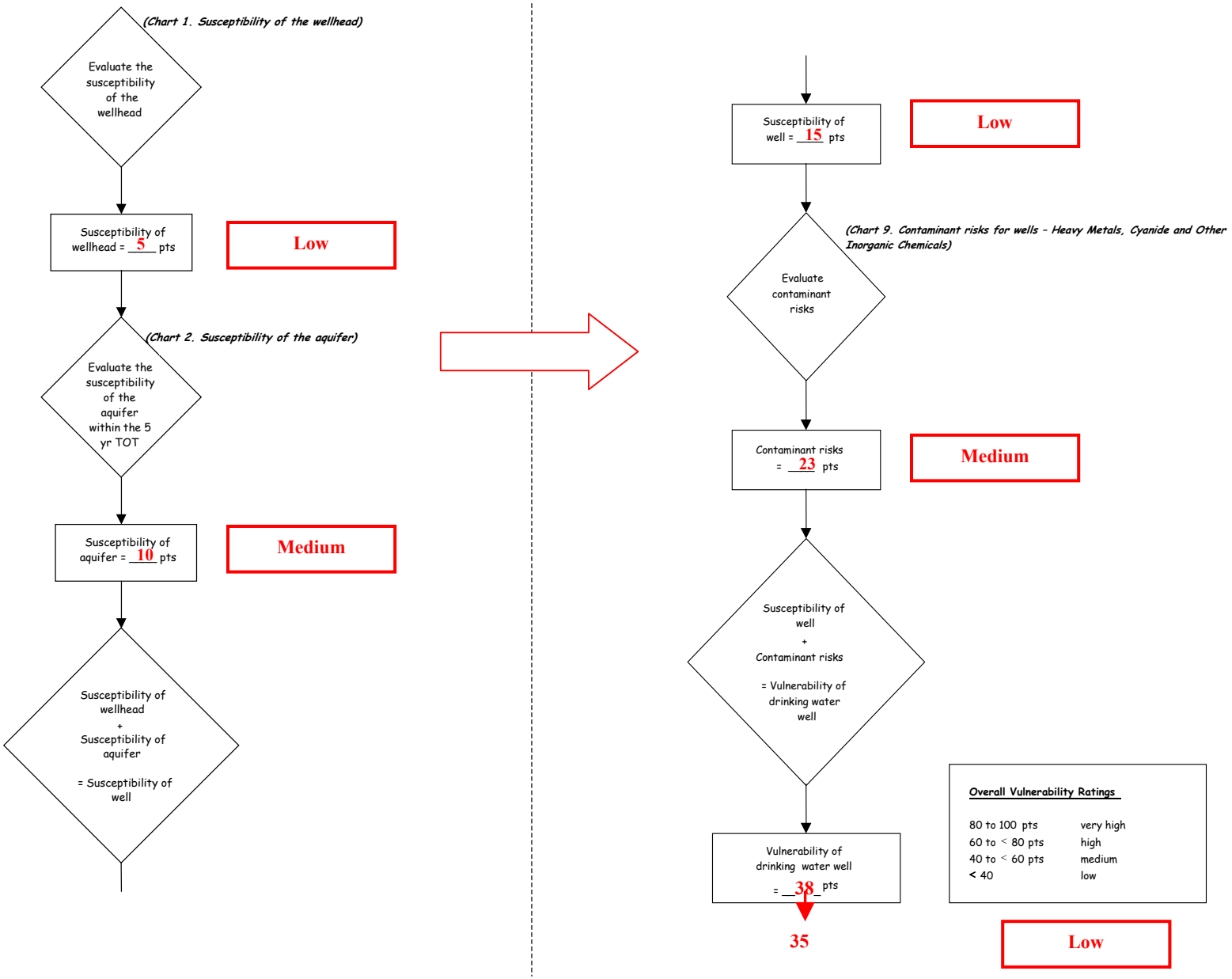


Chart 11. Contaminant risks for Four Seasons Trailer Court – Synthetic Organic Chemicals

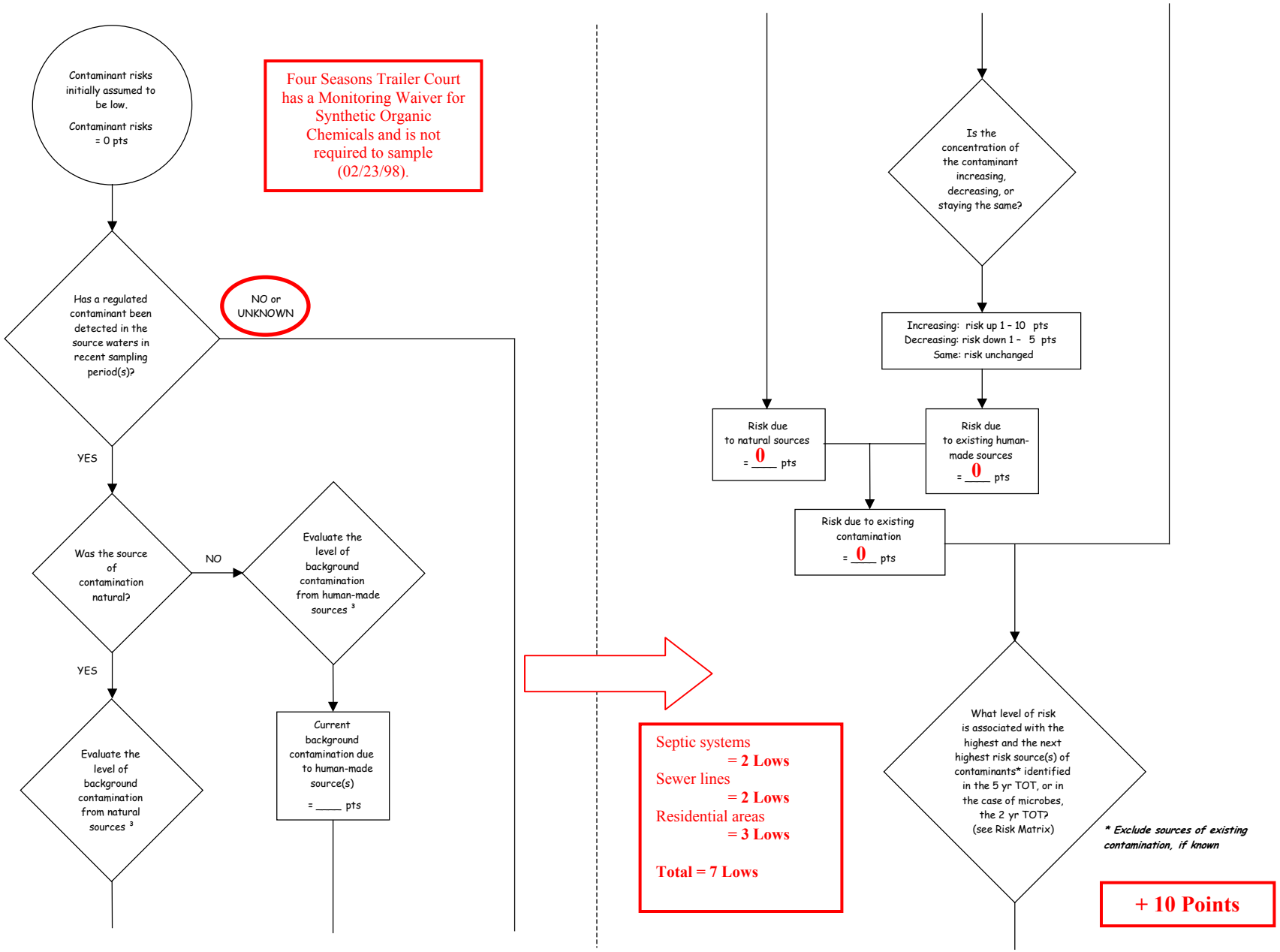
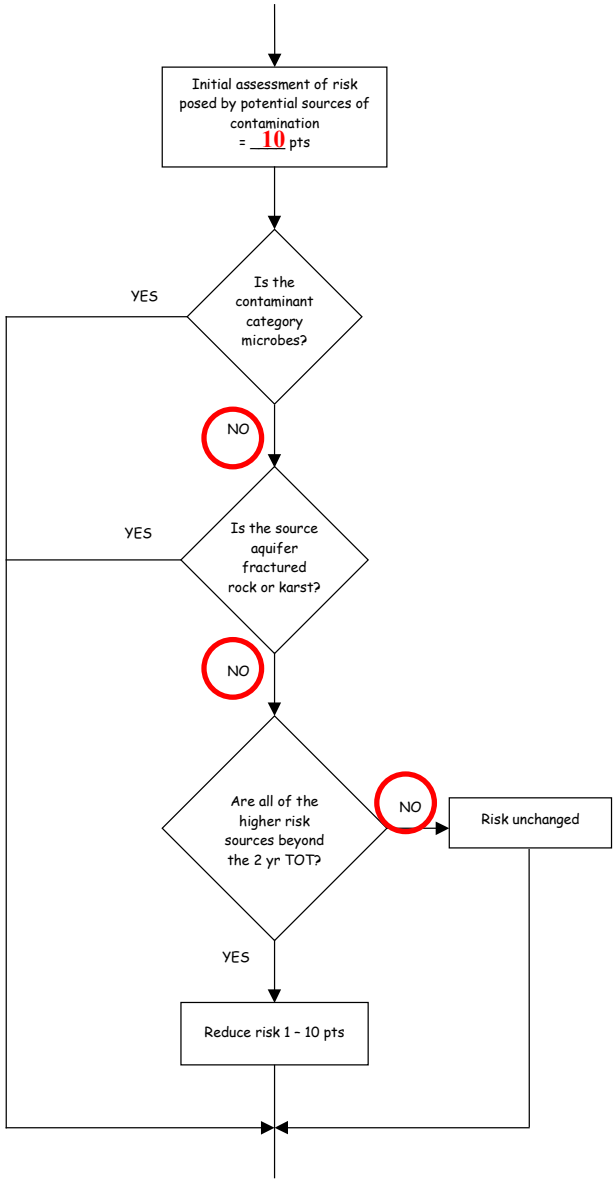


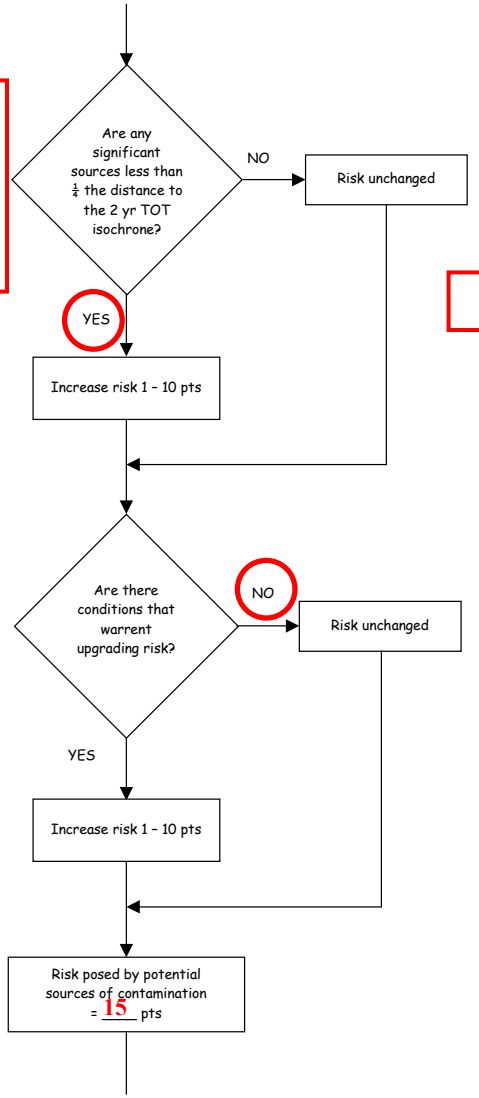
Chart 11. Contaminant risks for Four Seasons Trailer Court – Synthetic Organic Chemicals (Continued)



Zone A

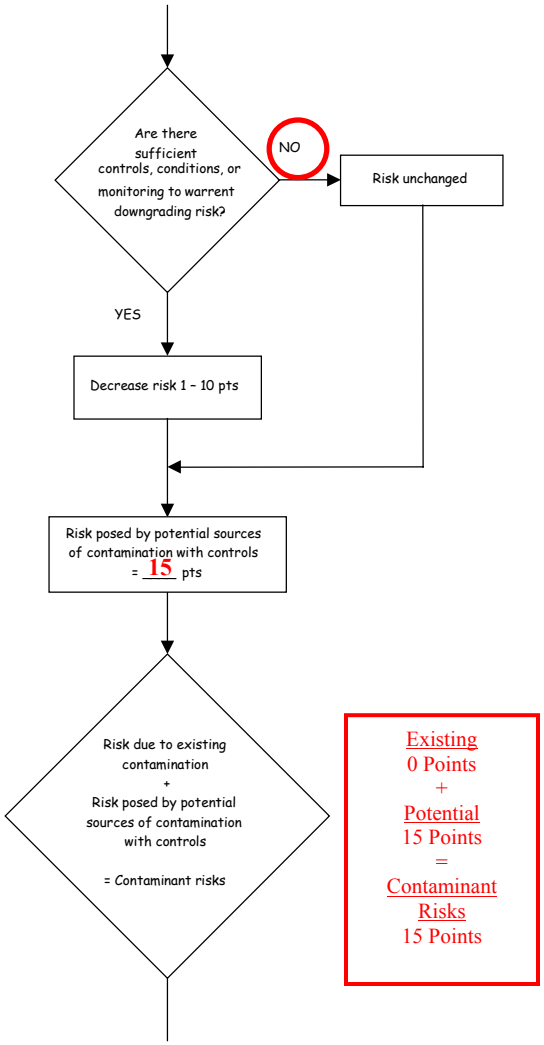
Multiple sewer lines and residential areas.

+5 Points

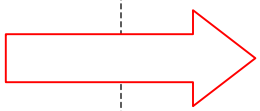


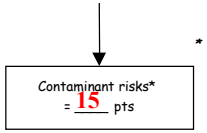
+ 5 Points

Chart 11. Contaminant risks for Four Seasons Trailer Court – Synthetic Organic Chemicals (Continued)



Existing
0 Points
+
Potential
15 Points
=
Contaminant
Risks
15 Points





** Truncate risk at 50 pts*

Low

3. Level of Background Contamination

> MCL	21 - 50 pts
0.5 MCL to < MCL	11 - 20 pts
0.2 MCL to < 0.5 MCL	6 - 10 pts
'detect' to < 0.2 MCL	0 - 5 pts

Contaminant Risk Ratings

40 to 50 pts	very high
30 to < 40 pts	high
20 to < 30 pts	medium
< 20	low

Table 5. Risk Matrix for Contaminant Sources for Four Seasons Trailer Court – Synthetic Organic Chemicals

Level of Risk Associated with the Highest Risk Sources

Next Highest Risk Sources(s)

Septic systems, sewer lines, and residential areas	**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

Chart 12. Vulnerability analysis for Four Seasons Trailer Court – Synthetic Organic Chemicals

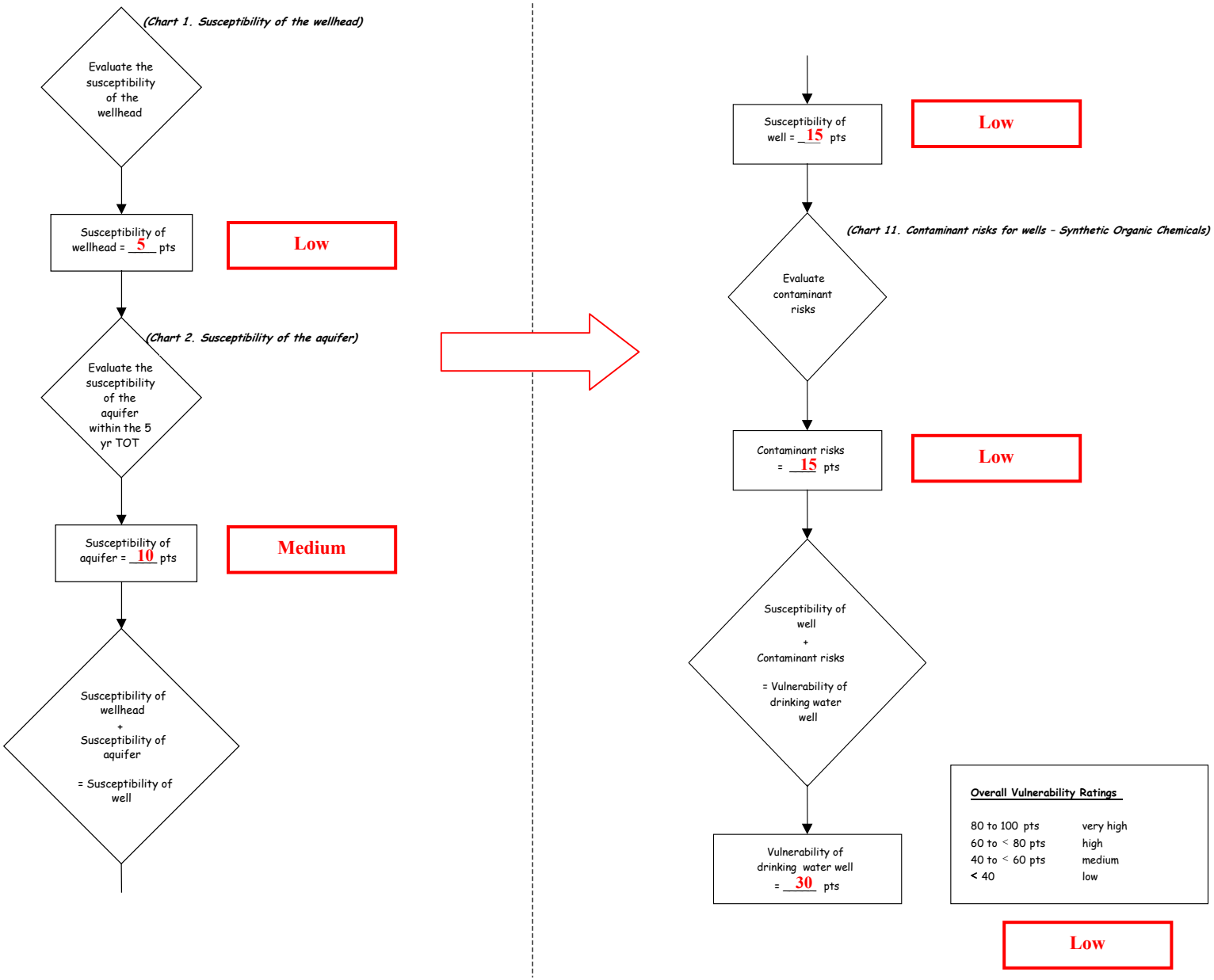


Chart 13. Contaminant risks for Four Seasons Trailer Court – Other Organic Chemicals

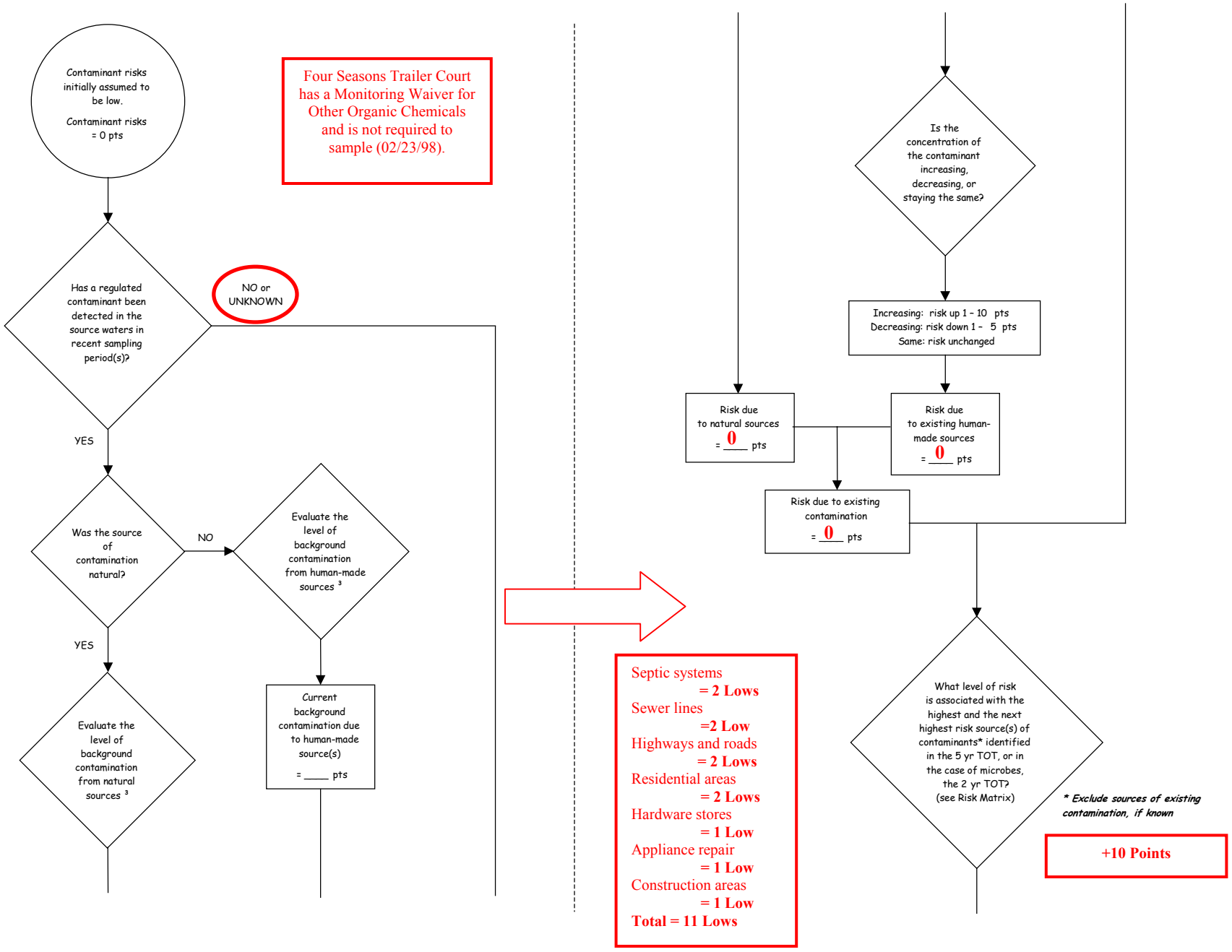


Chart 13. Contaminant risks for Four Seasons Trailer Court – Other Organic Chemicals (Continued)

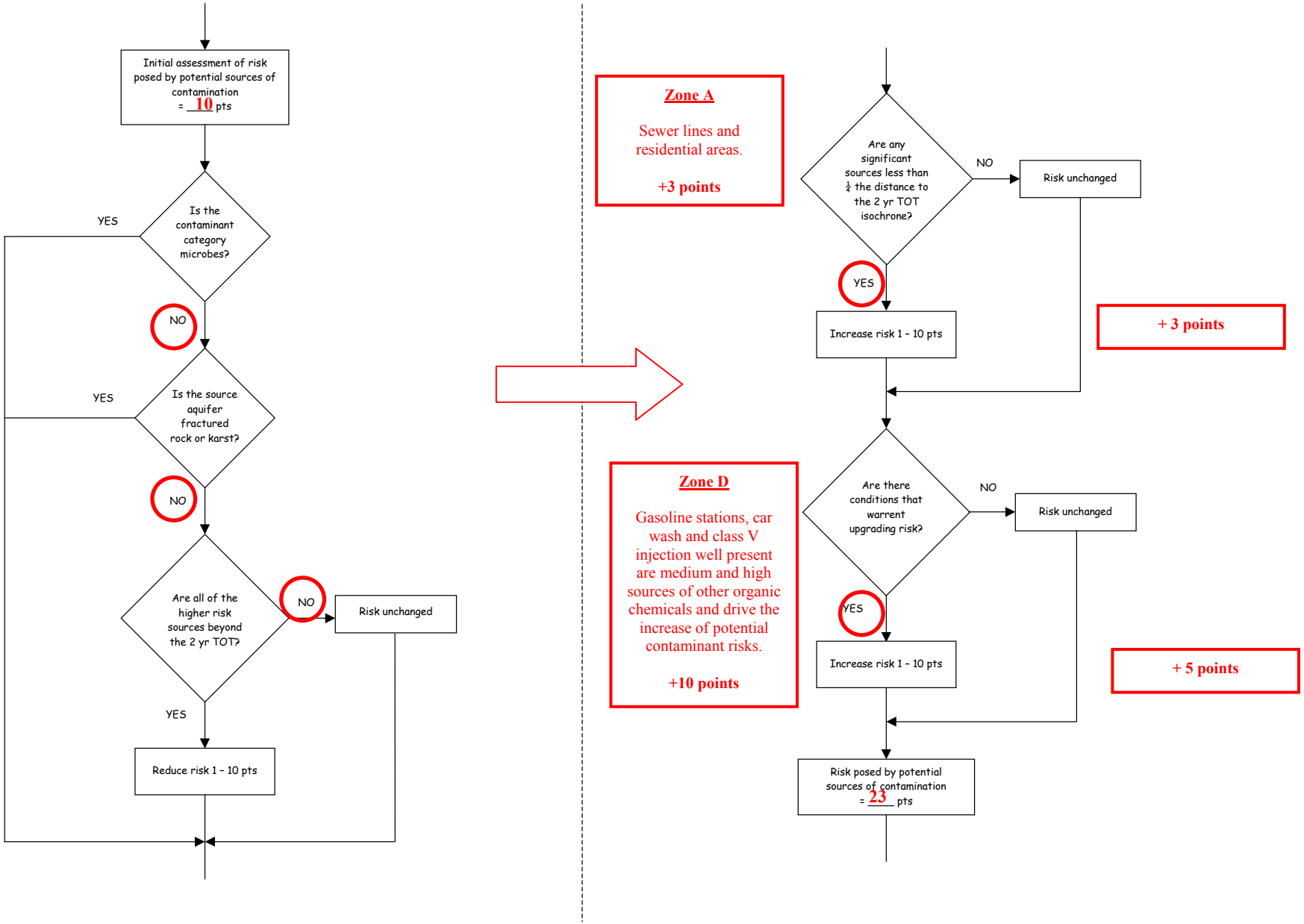
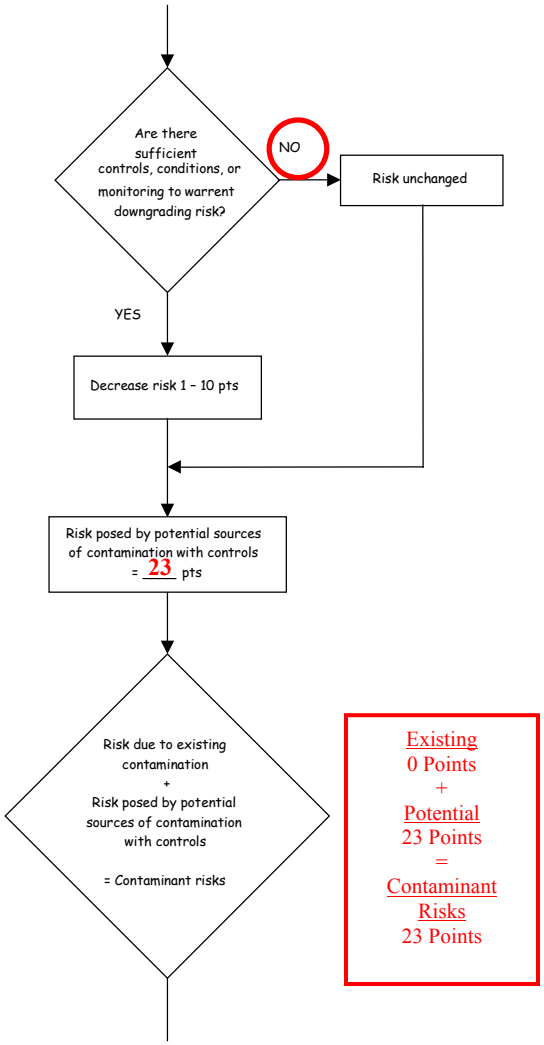
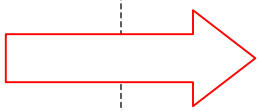


Chart 13. Contaminant risks for Four Seasons Trailer Court – Other Organic Chemicals (Continued)



Existing
0 Points
+
Potential
23 Points
=
Contaminant Risks
23 Points



** Truncate risk at 50 pts*

Contaminant risks*
= 23 pts

Medium

3. Level of Background Contamination

> MCL	21 - 50 pts
0.5 MCL to < MCL	11 - 20 pts
0.2 MCL to < 0.5 MCL	6 - 10 pts
'detect' to < 0.2 MCL	0 - 5 pts

Contaminant Risk Ratings

40 to 50 pts	very high
30 to < 40 pts	high
20 to < 30 pts	medium
< 20	low

Table 6. Risk Matrix for Contaminant Sources for Four Seasons Trailer Court – Other Organic Chemicals

Level of Risk Associated with the Highest Risk Sources

Next Highest Risk Sources(s)

Septic systems, sewer lines, highways and roads, residential areas	**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

Chart 14. Vulnerability analysis for Four Seasons Trailer Court – Other Organic Chemicals