Source Water Assessment

A Hydrogeologic Susceptibility and Vulnerability Assessment for South Park Estate Trailer Court, Anchorage, Alaska PWSID # 211091.001

DRINKING WATER PROTECTION PROGRAM REPORT 788

Alaska Department of Environmental Conservation

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

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

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Drinking Water Protection Program
Alaska Department of Environmental Conservation

EXECUTIVE SUMMARY

The public water system for South Park Estate Trailer Court is a Class A (community) water system consisting of one well in the Anchorage area. Identified potential and existing sources of contaminants for South Park Estate Trailer Court include: sewer lines, residential areas, roads, recreational trails, underground fuel tanks, Leaking Underground Storage Tank (LUST) sites, recognized contaminated sites and various commercial and industrial activities. 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, South Park Estate Trailer Court received a vulnerability rating of **Low** for synthetic organic chemicals, **Medium** for bacteria and viruses, nitrate/nitrites, and other organic chemicals and **High** for volatile organic chemicals and inorganic chemicals.

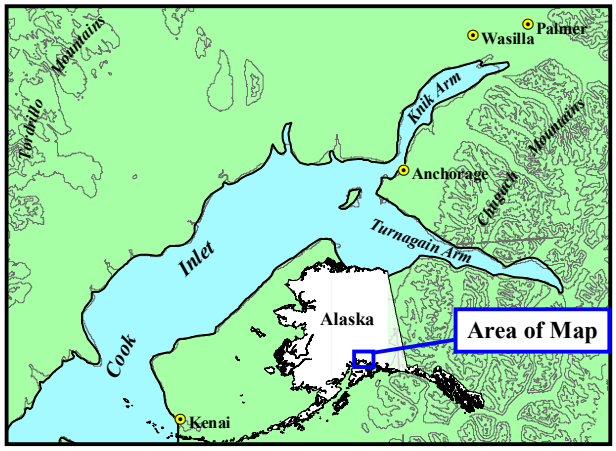

Figure 1. Index map showing the location of Anchorage, Alaska

INTRODUCTION

The Alaska Department of Environmental Conservation (ADEC) is completing source water assessments for all public drinking water sources in the State of Alaska. The purpose of this 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. The results of this source water assessment can be used to decide where voluntary protection efforts are needed and feasible, and what efforts will be most effective in reducing contaminant risks to your water system.

This source water assessment combines a review of the natural conditions at the site and the potential and existing contaminant risks. These are combined to determine the overall vulnerability of the drinking water source to contamination.

DESCRIPTION OF THE ANCHORAGE AREA, ALASKA

Location

Anchorage, located in south-central 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 Arm 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.

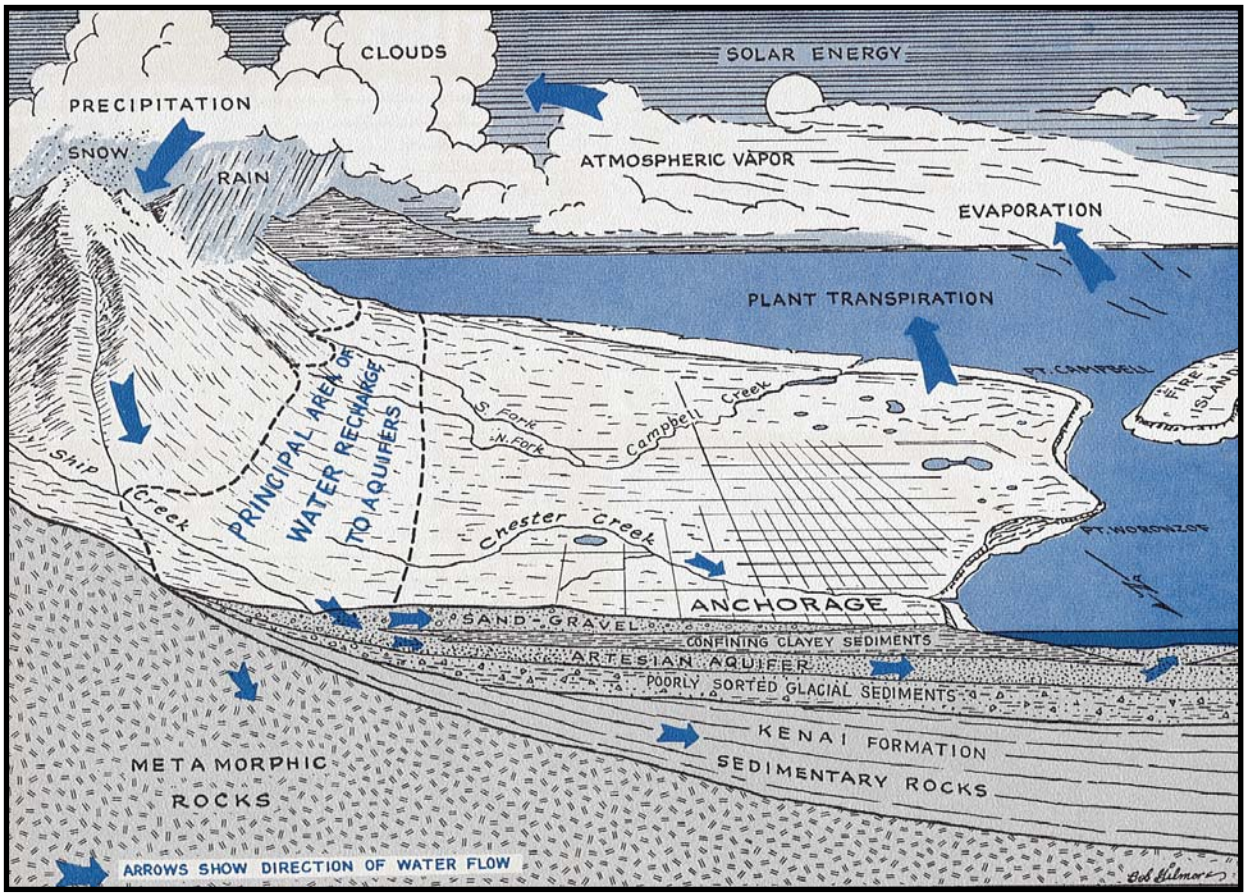

Figure 2. Generalized hydrologic cycle in the Anchorage area [*Barnwell, George, Dearborn,Weeks, and Zenone*, 1972].

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.

SOUTH PARK ESTATE TRAILER COURT PUBLIC DRINKING WATER SYSTEM

South Park Estate Trailer Court is a Class A (community) water system. The system consists of one well in the Anchorage area. (See Map 1 of Appendix A).

The well is located near Arctic Blvd and 33thAve, at an elevation of approximately 75 feet above sea level.

The 1996 Sanitary Survey indicates that the well is installed with caps providing a sanitary seal. A properly installed sanitary seal may provide protection against contaminants from entering the source waters at the well casing. Records indicate that the well was installed prior to grouting regulations. Thus, it is assumed that the well was not grouted according to current ADEC regulations. Proper grouting provides added protection against contaminants traveling along the well casing and into source waters.

Records indicate that the well depth is 250 feet deep. The well log is unavailable. However, logs of nearby wells indicate that there is a confining layer from 25 feet to 133 feet below the surface. This confining layer may provide protection from contaminates entering the aquifer. However, the protectiveness of the clay layers tend to thin out towards the mountains allowing contaminants that enter the subsurface near the base of the mountains to enter the confined aquifer uninhibited by the absence of any protective layer. In addition, wells penetrating the confining layer can further reduce the protectiveness.

This system operates 365 days per year and serves 175 residents through 72 service connections.

SOUTH PARK ESTATE TRAILER COURT PROTECTION AREA

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

The most probable area for contamination to reach the drinking water well is the area that contributes water to the well, the groundwater recharge area. This area is designated as the Drinking Water Protection Area (DWPA). Because releases of contaminants within the DWPA are most likely to impact the drinking water well, this area will serve as the focus for voluntary protection efforts.

An outline of the immediate watershed was used to determine the size and shape of the DWPA for South Park Estate Trailer Court. Available geology was also considered to take into account any uncertainties in groundwater flow and aquifer characteristics to arrive at a meaningful DWPA (Please refer to the Guidance Manual for Class A Public Water Systems for additional information).

The DWPAs established for wells by the ADEC are usually separated into four zones, limited by the watershed. These zones correspond to differences in the time-of-travel (TOT) of the water moving through the aquifer to the well. An analytical calculation was used to determine the size and shape of the DWPA. 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*), and State of Alaska Department of Water Resources (*Jokela et. al., 1991*).

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

Table 1. Definition of Zones

Zone	Definition
A	¼ the distance for the 2-yr. TOT
B	Less than the 2 year TOT
C	Less Than the 5 year TOT
D	Less than the 10 year TOT

INVENTORY OF POTENTIAL AND EXISTING CONTAMINANT SOURCES

The Drinking Water Protection Program has completed an inventory of potential and existing sources of contamination within South Park Estate Trailer Court DWPA. This inventory was completed through a search of agency records and other publicly available information. Potential sources of contamination to the drinking water aquifer include a wide range of categories and types. Potential drinking water contaminants are found within agricultural, residential, commercial, and industrial areas, but can also occur within areas that have little or no development.

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

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

The sources are displayed on Maps 2 -5 in Appendix C and summarized in Table 1 of Appendix B.

RANKING OF CONTAMINANT RISKS

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

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, volatile organic chemicals, heavy metals, synthetic organic chemicals, and other organic chemicals.

VULNERABILITY OF SOUTH PARK ESTATE TRAILER COURTDRINKING 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 has been analyzed and an overall vulnerability score of 0 to 100 is 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)

Table 2 shows the Susceptibility scores and ratings for the well serving South Park Estate Trailer Court.

Table 2. Susceptibility of the well

	Score	Rating
Susceptibility of the Wellhead	5	Low
Susceptibility of the Aquifer	7	Low
Natural Susceptibility	12	Low

Contaminant risks to a drinking water source depend on the type, number or density, and distribution of contaminant sources. This data has been derived from an examination of existing and historical contamination that has been detected at the drinking water source through routine sampling. It also evaluates potential sources of contamination. Table 3 summarizes the Contaminant Risks for each category of drinking water contaminants.

Table 3. Contaminant Risks

Category	Score	Rating
Bacteria and Viruses	35	High
Nitrates and/or Nitrites	28	Medium
Volatile Organic Chemicals	50	Very High
Heavy Metals, Cyanide, and Other Inorganic Chemicals	50	Very High
Synthetic Organic Chemicals	22	Medium
Other Organic Chemicals	45	Very High

Appendix D contains fourteen charts, which together form the 'Vulnerability Analysis' for a source water assessment for a public drinking water source. Chart 1 analyzes the 'Susceptibility of the Wellhead' to contamination by looking at the construction of the well and its surrounding area. Chart 2 analyzes the 'Susceptibility of the 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 Analyses for nitrates and nitrites, volatile organic chemicals, heavy metals, synthetic organic chemicals, and other organic chemicals, respectively.
Table 4 contains the overall vulnerability scores (0 – 100) and ratings for each of the six categories of drinking water contaminants. Note: scores are rounded off to the nearest five.

Table 4. Overall Vulnerability

Category	**Score**	**Rating**
Bacteria and Viruses	45	Medium
Nitrates and Nitrites	40	Medium
Volatile Organic Chemicals	60	High
Heavy Metals, Cyanide and Other Inorganic Chemicals	60	High
Synthetic Organic Chemicals	35	Low
Other Organic Chemicals	55	Medium

Bacteria and Viruses

The contaminant risk for bacteria and viruses is high with sewer lines, seafood processing, residential areas, medical facilities, parks and recreational trails presenting the most significant risk to the drinking water well (See Chart 3 – Contaminant Risks for Bacteria and Viruses in Appendix D).

Recent sampling of the well indicates that no bacteria and viruses have been detected. .

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

Nitrates and Nitrites
The contaminant risk for nitrates and nitrites is medium with sewer lines, residential areas, parks and recreational trails presenting the most significant risk to the drinking water well.

Sampling history indicates low concentrations of nitrates have been detected in source waters. On 12/29/99, 0.531 mg/l or 5% of the Maximum contaminant Level or MCL was detected. (See Chart 5 - Contaminant Risks for Nitrates and/or Nitrites in Appendix D).

The MCL is the maximum level of contaminant that is allowed to exist in drinking water and still be consumed by humans. Nitrate concentrations in uncontaminated groundwater are typically less than 2 milligrams per liter (mg/L) and are derived primarily from the decomposition of organic matter in soils (Wang, Strelakos, Jokela, 2000). Due to the high solubility and weak retnetnion by soil, nitrates are very mobile, moving at approximately the same rate as water. Though nitrates were detected at the site, concentrations remain at safe levels with respect to human health.

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

Volatile Organic Chemicals
The contaminant risk for volatile organic chemicals is very high with residential areas, sewer lines, roads, print shops, auto body repair shops, underground fuel tanks, Leaking Underground Storage Tank (LUST) sites and recognized contaminated sites presenting the most significant risk to the drinking water source. (See Chart 7 – Contaminant Risks for Volatile Organic Chemicals in Appendix D).

Recent sampling indicates that no volatile organic chemicals have been detected in the source waters.

After combining the contaminant risk for volatile organic chemicals with the natural susceptibility of the

well, the overall vulnerability of the well to contamination is high.

Heavy Metals, Cyanide, and Other Inorganic Chemicals
The contaminant risk for heavy metals, cyanide and other inorganic chemicals is very high with sewer lines, residential areas, roads, print shops, auto body repair shops, underground fuel tanks, battery manufacturing and recycling and the presence of existing contamination presenting the most significant risk to the drinking water source (See Chart 9 – Contaminant Risks for Heavy Metals, Cyanide, and Other Inorganic Chemicals in Appendix D).

Sampling on 11/20/01 indicates that arsenic was detected in the source waters at 0.00234 mg/l. This is 23% of the current MCL of 0.01 mg/l (See Chart 9 – Contaminant Risks for Heavy Metals and Other Inorganic Chemicals in Appendix D). The MCL for arsenic has recently been lowered from 0.050 mg/l to 0.01 mg/l.

According to the EPA, "Arsenic occurs naturally in rocks and soil, water, air, and plants and animals. It can be further released into the environment through natural activities such as volcanic action, erosion of rocks, and forest fires, or through human actions. Approximately 90 percent of industrial arsenic in the U.S. is currently used as a wood preservative, but arsenic is also used in paints, dyes, metals, drugs, soaps, and semi-conductors. Agricultural applications, mining, and smelting also contribute to arsenic releases in the environment." (USEPA, 2001). It is likely that the arsenic detected is from natural sources.

Studies have linked long-term exposure to arsenic in drinking water to cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate. Non-cancer effects of ingesting arsenic include cardiovascular, Pulmonary, immunological, neurological, and endocrine (e.g., diabetes) effects. Short-term exposure to high doses of arsenic can cause other adverse health effects, but such effects are unlikely to occur from U.S. public water supplies that are in compliance with the previous arsenic standard of 0.050 mg/l. (USEPA, 2001).

In addition, very low levels of barium and chromium have been detected in source waters. These levels are likely to be from natural sources and are considered safe with respect to human consumption.

Combining the contaminant risk with the natural susceptibility of the well, leads to an overall vulnerability to heavy metals and other inorganic chemical contamination of high.

Synthetic Organic Chemicals
The contaminant risk for synthetic organic chemicals is medium with sewer lines, residential areas, presenting the most significant risk. (See Chart 11 – Contaminant Risks for Synthetic Organic Chemicals in Appendix D, respectively).

Sampling of synthetic organic chemicals has not occurred. After combining the contaminant risk with the natural susceptibility of the well, the overall vulnerability to synthetic organic chemicals is low.

Other Organic Chemicals
The contaminant risk for other organic chemicals is very high with sewer lines, residential areas, roads, auto body shops presenting the most significant risk.

Sampling of other organic chemicals has not occurred. After combining the contaminant risk with the natural susceptibility of the well, the overall vulnerability to other organic chemicals is medium. (See Chart 13 – Contaminant Risks for Other Organic Chemicals in Appendix D, respectively).

SUMMARY

A *Source Water Assessment* has been completed for the source of public drinking water serving South Park Estate Trailer Court. The overall vulnerability of this source to contamination is **Low** for synthetic organic chemicals, **Medium** for bacteria and viruses, nitrate/nitrites, and other organic chemicals and **High** for volatile organic chemicals and inorganic 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 South Park Estate 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 South Park Estate Trailer Court public drinking water source.

REFERENCES

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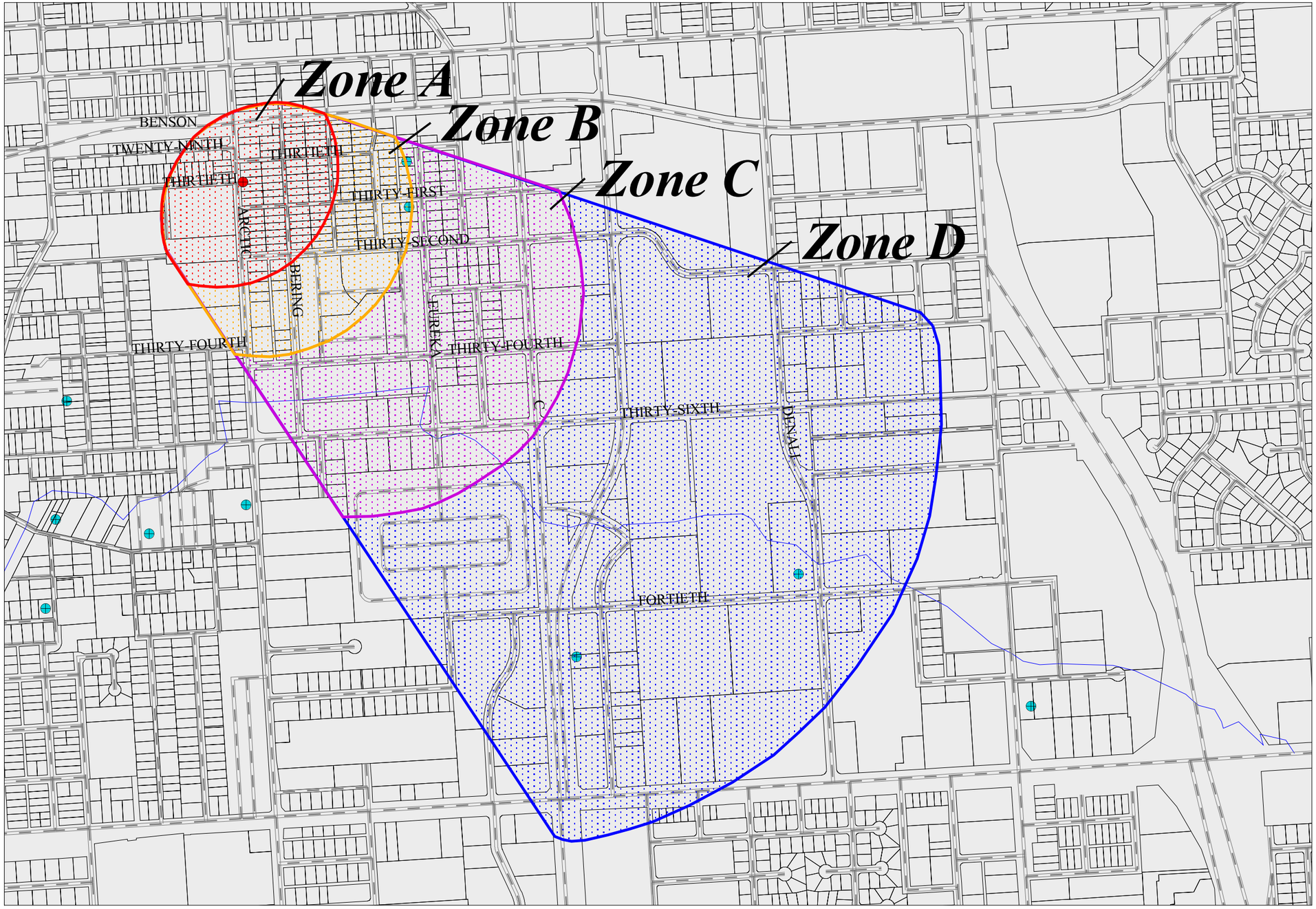
APPENDIX A

South Park Estate Trailer Court
Drinking Water Protection Area Location
(Map 1)

Drinking Water Protection Area for South Park Estate Trailer Court



Legend

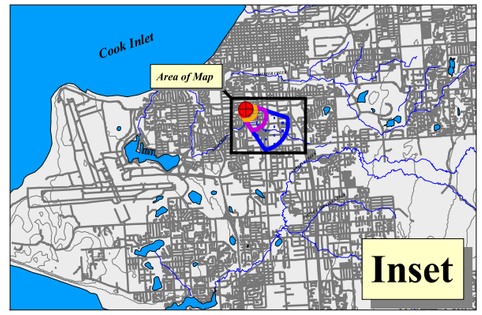
- South Park Estate Well

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
- Lakes
- Streams
- MOA Land Parcels
- Private/Public Water Wells



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Map 1

APPENDIX B

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court (Tables 1-7)

Table 1

Contaminant Source Inventory for ***South Park Estate Trailer Court***

PWSID 211091.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Body shops (automotive)	C05	C5-1	A	3	
Hardware stores	C17	C17-1	A	3	
Hardware stores	C17	C17-2	A	3	
Hardware stores	C17	C17-3	A	3	
Hardware stores	C17	C17-4	A	3	
Printers, publishers, copiers	C37	C37-1	A	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-1	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-2	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-3	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-4	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-6	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-7	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-8	A	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-9	A	2	
Seafood processing	N10	N10-1	A	3	
Seafood processing	N10	N10-2	A	3	
Residential Areas	R01	R1-1	A	3	Approximately 9 acres
Closed tanks, diesel (underground)	T09	T9-1	A	3	
Tanks, gasoline (underground)	T12	T12-1	A	3	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-1	A	3	3000 Arctic Blvd. File No. L69.42 Contaminated soil discovered during the removal of underground storage tanks. Soils were removed from site. Priority: High
Municipal or city parks (with green areas)	X04	X4-1	A	3	
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-10	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	2	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	3	
Dog walking areas/foot trails	X46	X46-1	A	3	
Dog walking areas/foot trails	X46	X46-2	A	3	
Dog walking areas/foot trails	X46	X46-3	A	3	
Dog walking areas/foot trails	X46	X46-4	A	3	
Construction trade areas and materials	C09	C9-1	B	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-10	B	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-11	B	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-12	B	2	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-13	B	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-14	B	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-15	B	2	
RCRA Hazardous Waste Generators	D54	D54-1	B	3	3330 Arctic Blvd. RCRA ID # AKD035401470 Hazardous waste generator. Chemcials are unspecified.
Jewelry manufacturing	I22	I22-1	B	3	
Jewelry manufacturing	I22	I22-2	B	3	
Septic systems (serves one or more single-family homes)	R02	R2-1	B	3	Approximately 67 acres
Septic systems (serves one or more single-family homes)	R02	R2-2	B	3	
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U8-1	B	3	3330 Arctivc Blvd. File No. L10 Soil and groundwater contamination discovered during the removal of underground storage tanks. Level and extent of contamination does not appear to be significant. No further action required.
Highways and roads, paved (cement or asphalt)	X20	X20-12	B	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	B	2	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	2	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	B	3	
Body shops (automotive)	C05	C5-2	C	4	
Construction trade areas and materials	C09	C9-2	C	4	
Construction trade areas and materials	C09	C9-3	C	4	
Construction trade areas and materials	C09	C9-4	C	4	
Florists	C12	C12-1	C	4	
Gasoline stations (without repair shop)	C15	C15-1	C	4	
Gasoline stations (without repair shop)	C15	C15-2	C	4	
Gasoline stations (without repair shop)	C15	C15-3	C	4	
Hardware stores	C17	C17-5	C	4	
Hardware stores	C17	C17-7	C	4	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Jewelers	C19	C19-1	C	4	
Laundromats without dry cleaning	C22	C22-1	C	4	
Motor/motor vehicle supplies stores	C28	C28-1	C	4	
Printers, publishers, copiers	C37	C37-2	C	4	
Printers, publishers, copiers	C37	C37-3	C	4	
Printers, publishers, copiers	C37	C37-4	C	4	
Printers, publishers, copiers	C37	C37-5	C	4	
Race tracks (automotive)	C38	C38-1	C	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-16-32	C	4	Approximately 16 sewer lines in Zone c
Battery manufacturing/recycling	I06	I6-1	C	4	
Machine and metal work shops	I23	I23-1	C	4	
Metal refining	I28	I28-1	C	4	
Rubber fabrication or manufacturing	I38	I38-1	C	4	
Sign manufacturing	I39	I39-1	C	4	
Meat processing	N05	N5-1	C	4	
Residential Areas	R01	R1-3	C	4	Approximatley 20
Tanks, diesel (underground)	T08	T8-1	C	4	
Tanks, diesel (underground)	T08	T8-2	C	4	
Tanks, diesel (underground)	T08	T8-3	C	4	
Tanks, diesel (underground)	T08	T8-4	C	4	
Tanks, gasoline (underground)	T12	T12-2	C	4	
Tanks, gasoline (underground)	T12	T12-3	C	4	
Tanks, gasoline (underground)	T12	T12-4	C	4	
Tanks, lubricants or other petroleum products (underground)	T20	T20-1	C	4	
Government vehicle maintenance facilities	X19	X19-1	C	4	
Highways and roads, paved (cement or asphalt)	X20	X20-15-28	C	4	Approximately 12 roads in Zone C

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	4	
Dog walking areas/foot trails	X46	X46-5	C	4	
Dog walking areas/foot trails	X46	X46-6	C	4	
Gasoline stations (without repair shop)	C15	C15-3	D	5	
Printers, publishers, copiers	C37	C37-6	D	5	
Asphalt and tar processing/storage	I03	I3-1	D	5	
Lumber processing and preservation	N04	N4-1	D	5	
Lumber processing and preservation	N04	N4-2	D	5	
Tanks, diesel (underground)	T08	T8-4	D	5	
Tanks, diesel (underground)	T08	T8-5	D	5	
Tanks, diesel (underground)	T08	T8-6	D	5	
Tanks, gasoline (underground)	T12	T12-5	D	5	
Tanks, gasoline (underground)	T12	T12-7	D	5	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U4-1	D	5	600 Telephone Avenue File No. CS100.155 Hydraulic fluid released from a floor unit under the building. 40cubic yards of soil removed from site. Priority: Low
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U7-2	D	5	150 W. Tudor Rd. File No. L30.12 Petroleum contamination notesd in 1987
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U8-2	D	5	Soil contamination present in excavation of underground storage tanks. No groundwater contamination noted. Priority: Low

Table 2

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Bacteria and Viruses

PWSID 211091.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-1	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-2	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-3	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-4	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-6	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-7	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-8	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-9	A	Medium	2	
Seafood processing	N10	N10-1	A	Medium	3	
Seafood processing	N10	N10-2	A	Medium	3	
Residential Areas	R01	R1-1	A	Low	3	Approximately 9 acres
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Low	2	

Table 2 (continued)

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Bacteria and Viruses

PWSID 211091.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Low	2	
Municipal or city parks (with green areas)	X04	X4-1	A	Medium	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Medium	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Medium	3	
Dog walking areas/foot trails	X46	X46-1	A	Low	3	
Dog walking areas/foot trails	X46	X46-1	A	Low	3	
Dog walking areas/foot trails	X46	X46-2	A	Low	3	
Dog walking areas/foot trails	X46	X46-3	A	Low	3	
Dog walking areas/foot trails	X46	X46-4	A	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-10	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-11	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-12	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-13	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-14	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-15	B	Medium	2	
Septic systems (serves one or more single-family homes)	R02	R2-1	B	Low	3	Approximately 67 acres

Table 2 (continued)

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Bacteria and Viruses

PWSID 211091.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Septic systems (serves one or more single-family homes)	R02	R2-2	B	Low	3	
Highways and roads, paved (cement or asphalt)	X20	X20-12	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Low	2	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	B	Medium	3	

Table 3

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Nitrates/Nitrites

PWSID 211091.001

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Hardware stores	C17	C17-1	A	Low	3	
Hardware stores	C17	C17-2	A	Low	3	
Hardware stores	C17	C17-3	A	Low	3	
Hardware stores	C17	C17-4	A	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-1	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-2	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-3	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-4	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-6	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-7	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-8	A	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-9	A	Medium	2	
Seafood processing	N10	N10-1	A	Low	3	
Seafood processing	N10	N10-2	A	Low	3	
Residential Areas	R01	R1-1	A	Low	3	Approximately 9 acres
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Low	2	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Low	2	
Municipal or city parks (with green areas)	X04	X4-1	A	Medium	3	
Dog walking areas/foot trails	X46	X46-1	A	Low	3	
Dog walking areas/foot trails	X46	X46-1	A	Low	3	
Dog walking areas/foot trails	X46	X46-2	A	Low	3	
Dog walking areas/foot trails	X46	X46-3	A	Low	3	
Dog walking areas/foot trails	X46	X46-4	A	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-10	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-11	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-12	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-13	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-14	B	Medium	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-15	B	Medium	2	

Table 3 (continued)

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Nitrates/Nitrites

PWSID 211091.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Septic systems (serves one or more single-family homes)	R02	R2-1	B	Low	3	Approximately 67 acres
Septic systems (serves one or more single-family homes)	R02	R2-2	B	Low	3	
Highways and roads, paved (cement or asphalt)	X20	X20-12	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Low	2	
Florists	C12	C12-1	C	Low	4	
Hardware stores	C17	C17-5	C	Low	4	
Hardware stores	C17	C17-7	C	Low	4	
Laundromats without dry cleaning	C22	C22-1	C	Low	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-16-32	C	Medium	4	Approximately 16 sewer lines in Zone c
Meat processing	N05	N5-1	C	Low	4	
Residential Areas	R01	R1-3	C	Low	4	Approximatley 20
Highways and roads, paved (cement or asphalt)	X20	X20-15-28	C	Low	4	Approximately 12 roads in Zone C
Dog walking areas/foot trails	X46	X46-5	C	Low	4	
Dog walking areas/foot trails	X46	X46-6	C	Low	4	

Table 4

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Volatile Organic Chemicals

PWSID 211091.001

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Hardware stores	C17	C17-1	A	Low	3	
Hardware stores	C17	C17-2	A	Low	3	
Hardware stores	C17	C17-3	A	Low	3	
Hardware stores	C17	C17-4	A	Low	3	
Printers, publishers, copiers	C37	C37-1	A	High	3	
Body shops (automotive)	C05	C5-1	A	Medium	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-1	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-2	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-3	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-4	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-6	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-7	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-8	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-9	A	Low	2	
Residential Areas	R01	R1-1	A	Low	3	Approximately 9 acres
Tanks, gasoline (underground)	T12	T12-1	A	High	3	
Closed tanks, diesel (underground)	T09	T9-1	A	Medium	3	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-1	A	High	3	3000 Arctic Blvd. File No. L69.42 Contaminated soil discovered during the removal of underground storage tanks. Soils were removed from site. Priority: High
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Low	2	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Low	3	
Construction trade areas and materials	C09	C9-1	B	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-10	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-11	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-12	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-13	B	Low	2	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-14	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-15	B	Low	2	
Jewelry manufacturing	I22	I22-1	B	Medium	3	
Jewelry manufacturing	I22	I22-2	B	Medium	3	
Septic systems (serves one or more single-family homes)	R02	R2-1	B	Low	3	Approximately 67 acres
Septic systems (serves one or more single-family homes)	R02	R2-2	B	Low	3	
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U8-1	B	Low	3	3330 Arctivc Blvd. File No. L10 Soil and groundwater contamination discovered during the removal of underground storage tanks. Level and extent of contamination does not appear to be significant. No further action required.
Highways and roads, paved (cement or asphalt)	X20	X20-12	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Low	2	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	B	Low	3	
Gasoline stations (without repair shop)	C15	C15-1	C	High	4	
Gasoline stations (without repair shop)	C15	C15-2	C	High	4	
Gasoline stations (without repair shop)	C15	C15-3	C	High	4	
Hardware stores	C17	C17-5	C	Low	4	
Hardware stores	C17	C17-7	C	Low	4	
Jewelers	C19	C19-1	C	Low	4	
Laundromats without dry cleaning	C22	C22-1	C	Low	4	
Motor/motor vehicle supplies stores	C28	C28-1	C	Low	4	
Printers, publishers, copiers	C37	C37-2	C	High	4	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Printers, publishers, copiers	C37	C37-3	C	High	4	
Printers, publishers, copiers	C37	C37-4	C	High	4	
Printers, publishers, copiers	C37	C37-5	C	High	4	
Race tracks (automotive)	C38	C38-1	C	Low	4	
Body shops (automotive)	C05	C5-2	C	Medium	4	
Construction trade areas and materials	C09	C9-2	C	Low	4	
Construction trade areas and materials	C09	C9-3	C	Low	4	
Construction trade areas and materials	C09	C9-4	C	Low	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-16-32	C	Low	4	Approximately 16 sewer lines in Zone c
Machine and metal work shops	I23	I23-1	C	High	4	
Metal refining	I28	I28-1	C	Medium	4	
Rubber fabrication or manufacturing	I38	I38-1	C	Very High	4	
Sign manufacturing	I39	I39-1	C	Medium	4	
Meat processing	N05	N5-1	C	Medium	4	
Residential Areas	R01	R1-3	C	Low	4	Approximatley 20
Tanks, gasoline (underground)	T12	T12-2	C	High	4	
Tanks, gasoline (underground)	T12	T12-3	C	High	4	
Tanks, gasoline (underground)	T12	T12-4	C	High	4	
Tanks, diesel (underground)	T08	T8-1	C	High	4	
Tanks, diesel (underground)	T08	T8-2	C	High	4	
Tanks, diesel (underground)	T08	T8-3	C	High	4	
Tanks, diesel (underground)	T08	T8-4	C	High	4	
Government vehicle maintenance facilities	X19	X19-1	C	Medium	4	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Highways and roads, paved (cement or asphalt)	X20	X20-15-28	C	Low	4	Approximately 12 roads in Zone C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	Low	4	
Gasoline stations (without repair shop)	C15	C15-3	D	High	5	
Printers, publishers, copiers	C37	C37-6	D	High	5	
Asphalt and tar processing/storage	I03	I3-1	D	Medium	5	
Lumber processing and preservation	N04	N4-1	D	Medium	5	
Lumber processing and preservation	N04	N4-2	D	Medium	5	
Tanks, gasoline (underground)	T12	T12-5	D	High	5	
Tanks, gasoline (underground)	T12	T12-7	D	High	5	
Tanks, diesel (underground)	T08	T8-4	D	High	5	

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Volatile Organic Chemicals

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Tanks, diesel (underground)	T08	T8-5	D	High	5	
Tanks, diesel (underground)	T08	T8-6	D	High	5	
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U4-1	D	High	5	600 Telephone Avenue File No. CS100.155 Hydraulic fluid released from a floor unit under the building. 40cubic yards of soil removed from site. Priority: Low
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U7-2	D	High	5	150 W. Tudor Rd. File No. L30.12 Petroleum contamination notesd in 1987
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U8-2	D	Low	5	Soil contamination present in excavation of underground storage tanks. No groundwater contamination noted. Priority: Low

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Hardware stores	C17	C17-1	A	Low	3	
Hardware stores	C17	C17-2	A	Low	3	
Hardware stores	C17	C17-3	A	Low	3	
Hardware stores	C17	C17-4	A	Low	3	
Printers, publishers, copiers	C37	C37-1	A	Medium	3	
Body shops (automotive)	C05	C5-1	A	Medium	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-1	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-2	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-3	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-4	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-6	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-7	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-8	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-9	A	Low	2	
Residential Areas	R01	R1-1	A	Low	3	Approximately 9 acres
Tanks, gasoline (underground)	T12	T12-1	A	Medium	3	
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Low	2	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Low	2	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Low	3	
Construction trade areas and materials	C09	C9-1	B	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-10	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-11	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-12	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-13	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-14	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-15	B	Low	2	
Jewelry manufacturing	I22	I22-1	B	High	3	
Jewelry manufacturing	I22	I22-2	B	High	3	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Septic systems (serves one or more single-family homes)	R02	R2-1	B	Low	3	Approximately 67 acres
Septic systems (serves one or more single-family homes)	R02	R2-2	B	Low	3	
Highways and roads, paved (cement or asphalt)	X20	X20-12	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Low	2	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	B	Low	3	
Florists	C12	C12-1	C	Low	4	
Gasoline stations (without repair shop)	C15	C15-1	C	Low	4	
Gasoline stations (without repair shop)	C15	C15-2	C	Low	4	
Gasoline stations (without repair shop)	C15	C15-3	C	Low	4	
Hardware stores	C17	C17-5	C	Low	4	
Hardware stores	C17	C17-7	C	Low	4	
Jewelers	C19	C19-1	C	Low	4	
Motor/motor vehicle supplies stores	C28	C28-1	C	Low	4	
Printers, publishers, copiers	C37	C37-2	C	Medium	4	
Printers, publishers, copiers	C37	C37-3	C	Medium	4	
Printers, publishers, copiers	C37	C37-4	C	Medium	4	
Printers, publishers, copiers	C37	C37-5	C	Medium	4	
Body shops (automotive)	C05	C5-2	C	Medium	4	
Construction trade areas and materials	C09	C9-2	C	Low	4	
Construction trade areas and materials	C09	C9-3	C	Low	4	
Construction trade areas and materials	C09	C9-4	C	Low	4	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-16-32	C	Low	4	Approximately 16 sewer lines in Zone c
Machine and metal work shops	I23	I23-1	C	High	4	
Rubber fabrication or manufacturing	I38	I38-1	C	Medium	4	
Sign manufacturing	I39	I39-1	C	Medium	4	
Battery manufacturing/recycling	I06	I6-1	C	Very High	4	
Residential Areas	R01	R1-3	C	Low	4	Approximatley 20
Tanks, gasoline (underground)	T12	T12-2	C	Medium	4	
Tanks, gasoline (underground)	T12	T12-3	C	Medium	4	
Tanks, gasoline (underground)	T12	T12-4	C	Medium	4	
Tanks, lubricants or other petroleum products (underground)	T20	T20-1	C	Medium	4	
Government vehicle maintenance facilities	X19	X19-1	C	Low	4	
Highways and roads, paved (cement or asphalt)	X20	X20-15-28	C	Low	4	Approximately 12 roads in Zone C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	Low	4	

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court

Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	Low	4	
Gasoline stations (without repair shop)	C15	C15-3	D	Low	5	
Asphalt and tar processing/storage	I03	I3-1	D	Low	5	
Lumber processing and preservation	N04	N4-1	D	Medium	5	
Lumber processing and preservation	N04	N4-2	D	Medium	5	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Printers, publishers, copiers	C37	C37-1	A	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-1	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-2	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-3	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-4	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-6	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-7	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-8	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-9	A	Low	2	
Residential Areas	R01	R1-1	A	Low	3	Approximately 9 acres
Municipal or city parks (with green areas)	X04	X4-1	A	Low	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-10	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-11	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-12	B	Low	2	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-13	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-14	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-15	B	Low	2	
Septic systems (serves one or more single-family homes)	R02	R2-1	B	Low	3	Approximately 67 acres
Septic systems (serves one or more single-family homes)	R02	R2-2	B	Low	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	B	Low	3	
Printers, publishers, copiers	C37	C37-2	C	Low	4	
Printers, publishers, copiers	C37	C37-3	C	Low	4	
Printers, publishers, copiers	C37	C37-4	C	Low	4	
Printers, publishers, copiers	C37	C37-5	C	Low	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-16-32	C	Low	4	Approximately 16 sewer lines in Zone c
Machine and metal work shops	I23	I23-1	C	Low	4	
Residential Areas	R01	R1-3	C	Low	4	Approximatley 20
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	C	Low	4	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	Low	4	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	C	Low	4	
Lumber processing and preservation	N04	N4-1	D	Medium	5	
Lumber processing and preservation	N04	N4-2	D	Medium	5	

Table 7

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court Sources of Other Organic Chemicals

PWSID 211091.001

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Hardware stores	C17	C17-1	A	Low	3	
Hardware stores	C17	C17-2	A	Low	3	
Hardware stores	C17	C17-3	A	Low	3	
Hardware stores	C17	C17-4	A	Low	3	
Body shops (automotive)	C05	C5-1	A	Medium	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-1	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-2	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-3	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-4	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-6	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-7	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-8	A	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-9	A	Low	2	
Residential Areas	R01	R1-1	A	Low	3	Approximately 9 acres
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-10	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-11	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	2	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Highways and roads, paved (cement or asphalt)	X20	X20-3	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-4	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-5	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-6	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-7	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-8	A	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-9	A	Low	2	
Construction trade areas and materials	C09	C9-1	B	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-10	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-11	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-12	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-13	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-14	B	Low	2	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-15	B	Low	2	
Jewelry manufacturing	I22	I22-1	B	Medium	3	
Jewelry manufacturing	I22	I22-2	B	Medium	3	
Highways and roads, paved (cement or asphalt)	X20	X20-12	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-13	B	Low	2	
Highways and roads, paved (cement or asphalt)	X20	X20-14	B	Low	2	
Gasoline stations (without repair shop)	C15	C15-1	C	Low	4	
Gasoline stations (without repair shop)	C15	C15-2	C	Low	4	

Table 7 (continued)

Contaminant Source Inventory and Risk Ranking for South Park Estate Trailer Court
Sources of Other Organic Chemicals

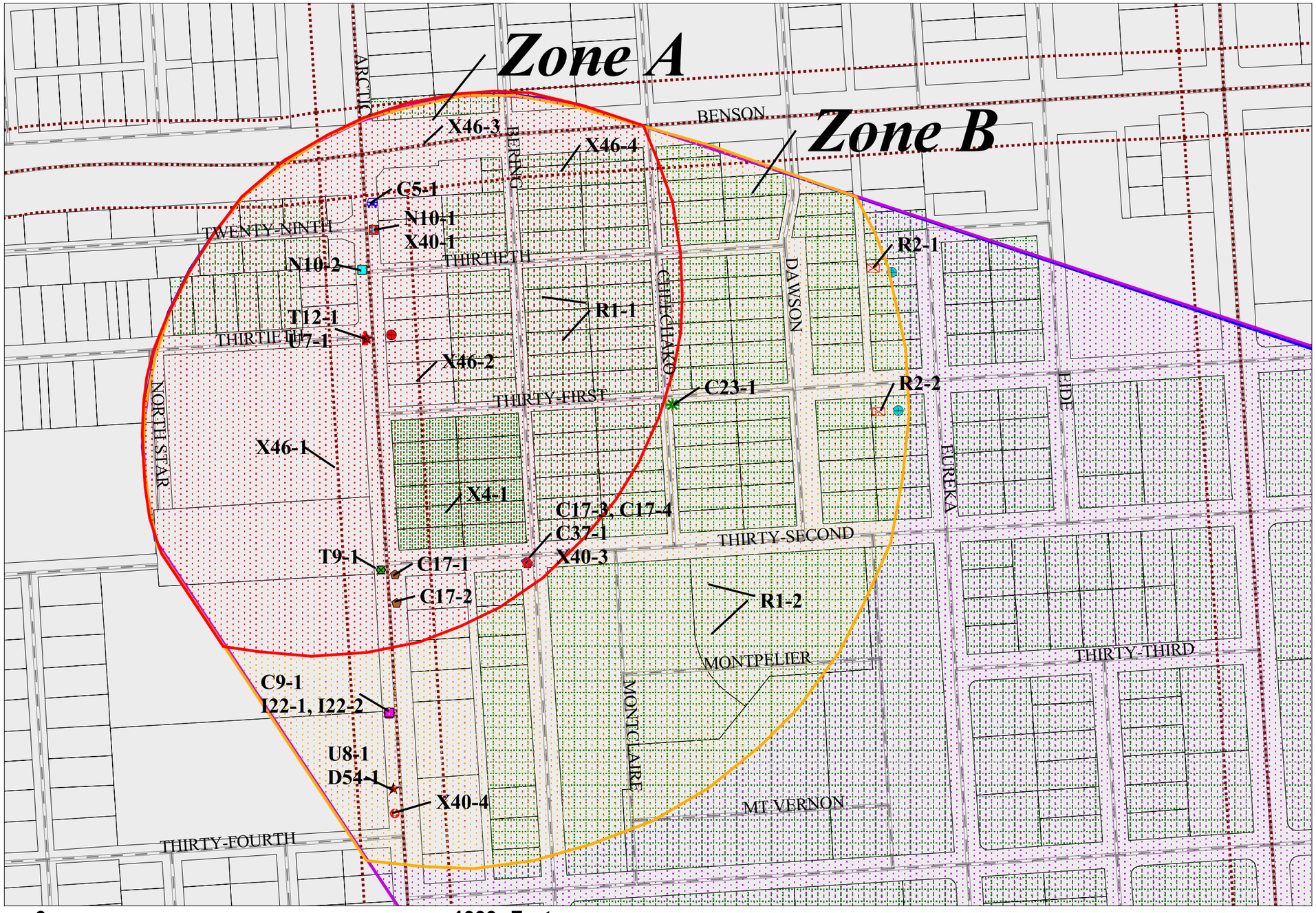
PWSID 211091.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Gasoline stations (without repair shop)	C15	C15-3	C	Low	4	
Hardware stores	C17	C17-5	C	Low	4	
Hardware stores	C17	C17-7	C	Low	4	
Race tracks (automotive)	C38	C38-1	C	Low	4	
Body shops (automotive)	C05	C5-2	C	Medium	4	
Construction trade areas and materials	C09	C9-2	C	Low	4	
Construction trade areas and materials	C09	C9-3	C	Low	4	
Construction trade areas and materials	C09	C9-4	C	Low	4	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-16-32	C	Low	4	Approximately 16 sewer lines in Zone c
Machine and metal work shops	I23	I23-1	C	High	4	
Rubber fabrication or manufacturing	I38	I38-1	C	Very High	4	
Meat processing	N05	N5-1	C	Low	4	
Residential Areas	R01	R1-3	C	Low	4	Approximatley 20
Government vehicle maintenance facilities	X19	X19-1	C	Medium	4	
Highways and roads, paved (cement or asphalt)	X20	X20-15-28	C	Low	4	Approximately 12 roads in Zone C
Gasoline stations (without repair shop)	C15	C15-3	D	Low	5	
Asphalt and tar processing/storage	I03	I3-1	D	High	5	
Lumber processing and preservation	N04	N4-1	D	Medium	5	
Lumber processing and preservation	N04	N4-2	D	Medium	5	

APPENDIX C

South Park Estate Trailer Court
Drinking Water Protection Area
and Potential and Existing Contaminant Sources
(Maps 2-5)

Drinking Water Protection Area for South Park Estate Trailer Court with Potential and Existing Sources of Contamination



Legend

- South Park Estate Well

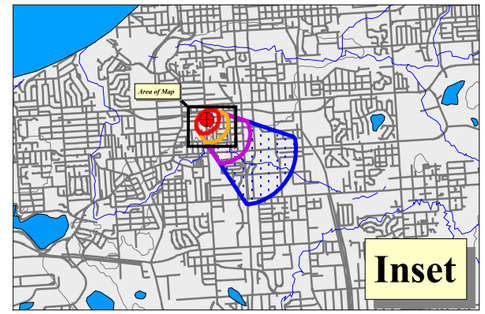
Zone A Protection Area
- Several Months Travel Time

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

Contaminant Sources
- Hardware stores (C17)
- Lawn and garden supplies/service (C23)
- Printers, publishers, copiers (C37)
- Body shops (C5)
- Construction trade areas (C9)
- Jewelry manufacturing (I22)
- Seafood processing (N10)
- Tanks, gasoline, (underground) (T12)
- Closed tanks, diesel, (underground) (T9)
- Contaminated site, DEC recognized (U4)
- Medical/veterinary facilities (X40)
- RCRA Hazardous Waste Generators (D54)
- Private/Public Water Wells
- Septics (R-2)
- Trails (X46)
- Roads
- MOA Land Parcels
- Lawns and gardens (R1)
- Parks (X4)



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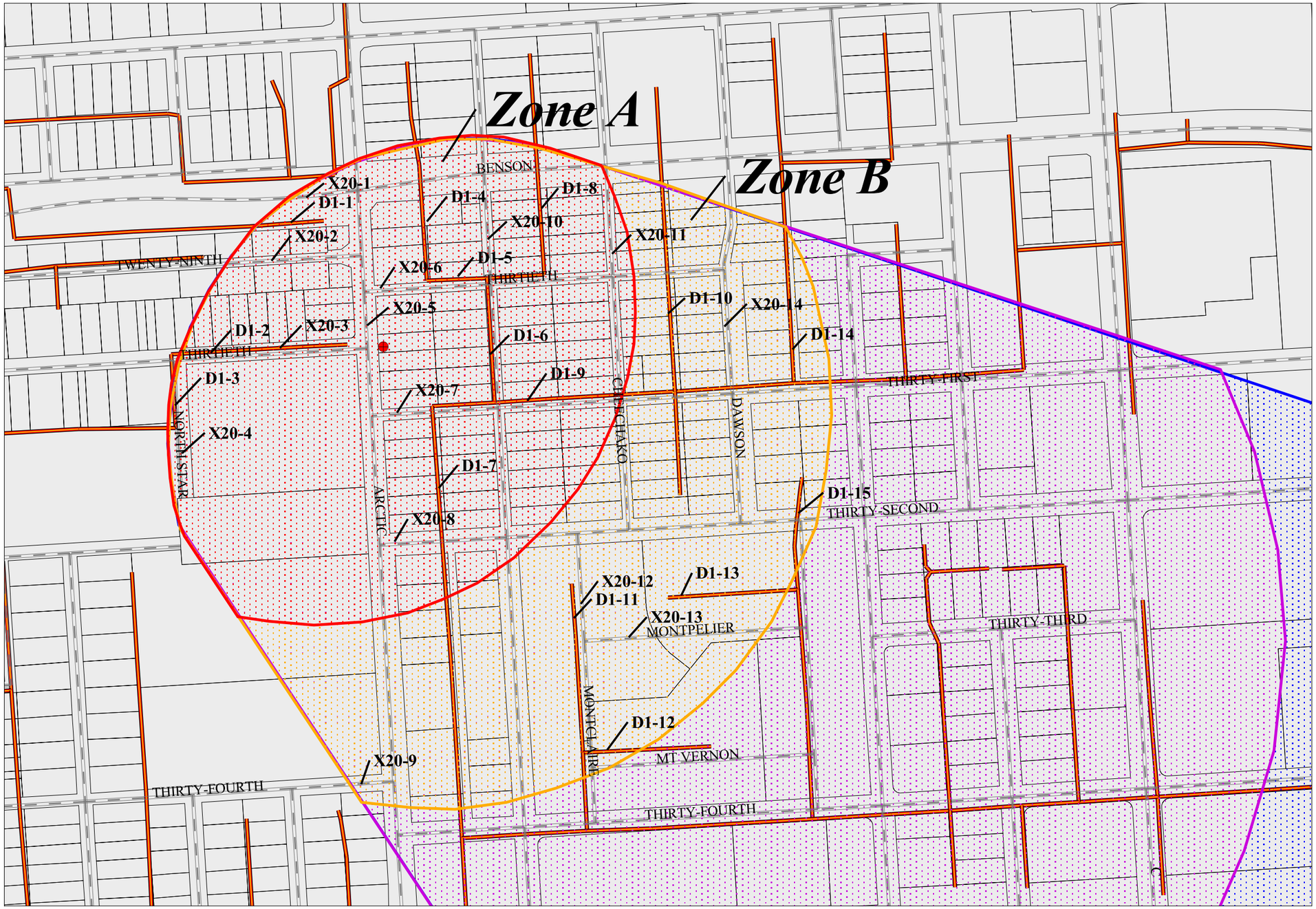
Map 3

Drinking Water Protection Area for South Park Estate Trailer Court with Potential and Existing Sources of Contamination



Legend

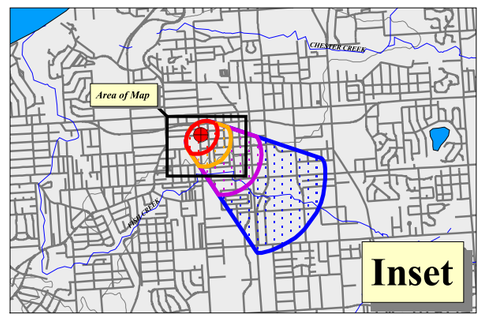
- South Park Estate Well

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
- Sewers (D1)
- MOA Land Parcels



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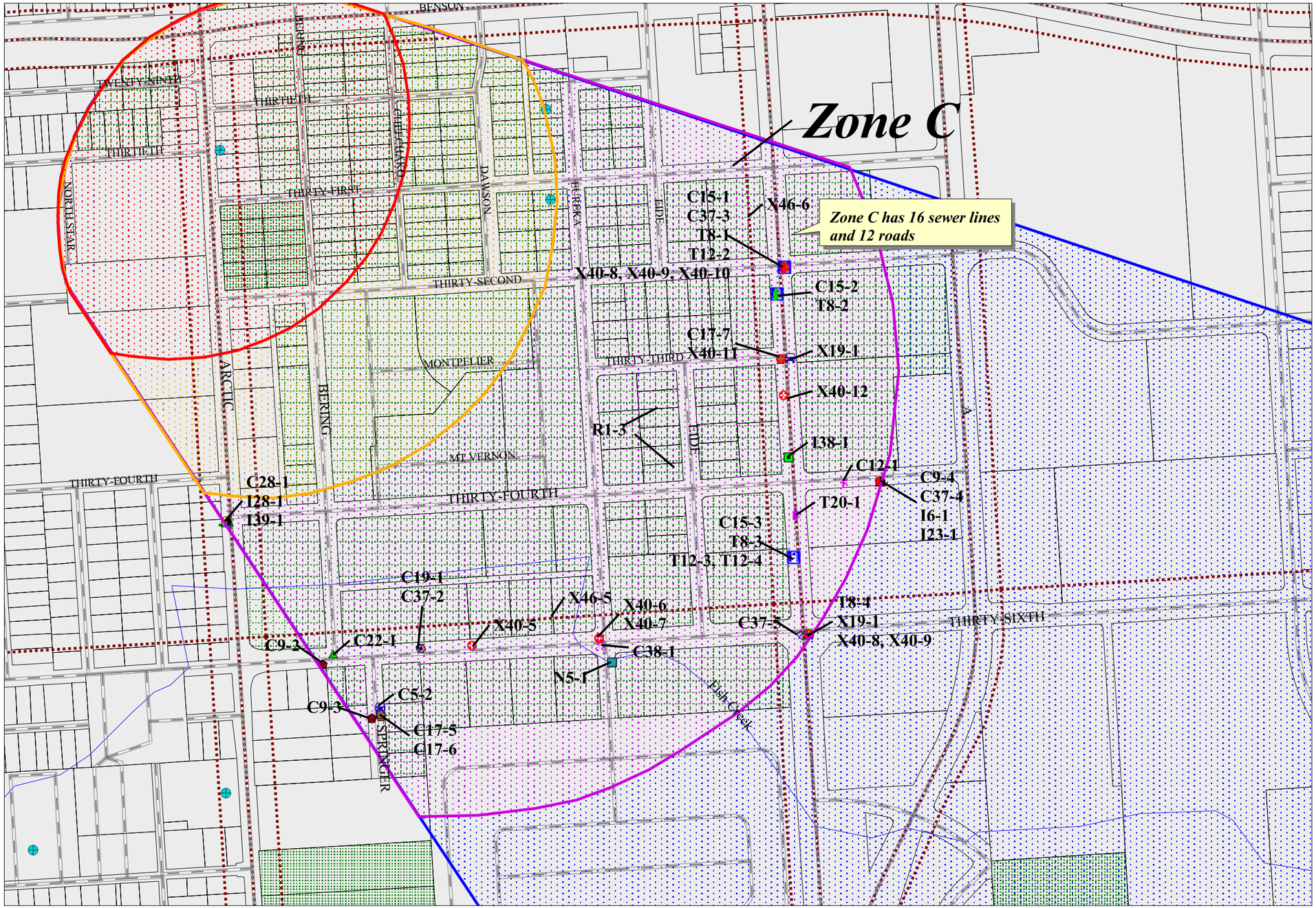
Map 2

Drinking Water Protection Area for South Park Estate Trailer Court with Potential and Existing Sources of Contamination



Legend

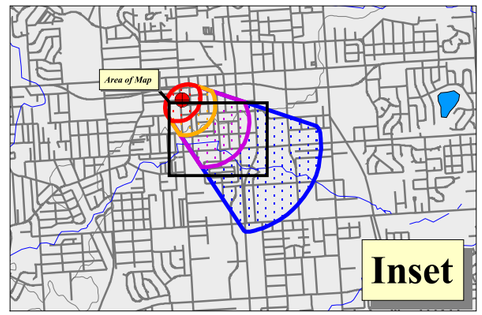
Zone A Protection Area
- Several Months Travel Time

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

Contaminant Sources
- Florists (C12)
- Gasoline stations (without repair shops) (C15)
- Hardware stores (C17)
- Jewelers (C19)
- Laundromats without dry cleaning (C22)
- Motor vehicle supplies stores (C28)
- Printers, publishers, copiers (C37)
- Race tracks (automotive) (C38)
- Body shops (C5)
- Construction trade areas (C9)
- Machine and metal work shops (I23)
- Metal refining (I28)
- Rubber fabrication or manufacturing (I38)
- Sign manufacturing (I39)
- Battery manufacturing/recycling (I6)
- Meat processing (N5)
- Tanks, gasoline (underground) (T12)
- Tanks, lubricants or other petroleum products (T20)
- Tanks, diesel (underground) (T8)
- Government vehicle maintenance (X19)
- Medical/veterinary facilities (X40)
- Roads
- Private/Public Water Wells
- Streams
- Trails (X46)
- MOA Land Parcels
- Lawns and gardens (R1)
- Parks (X4)



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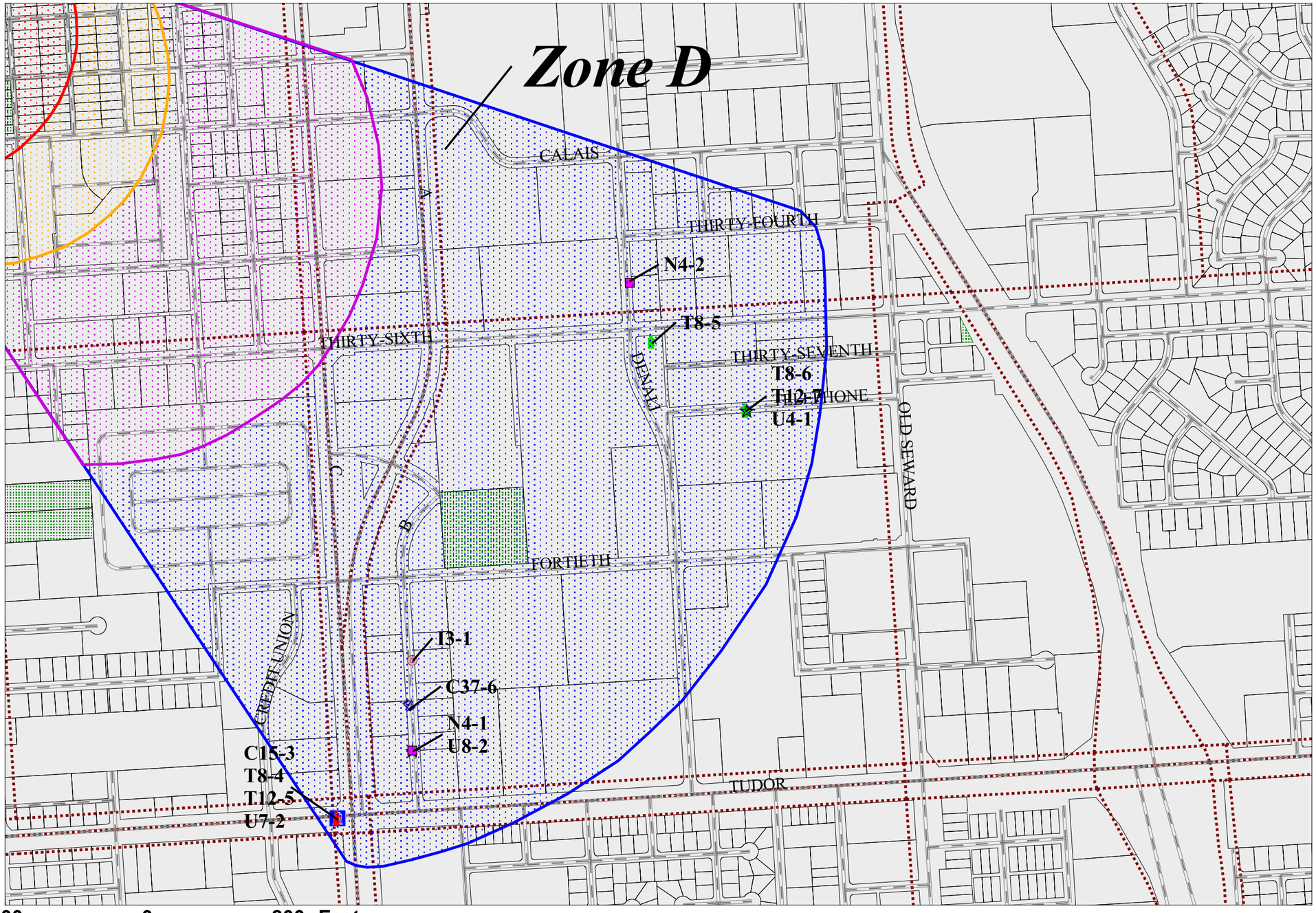
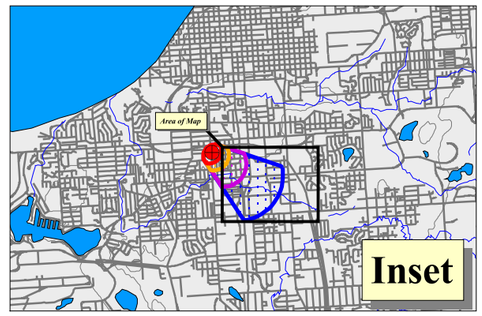
Map 4

Drinking Water Protection Area for South Park Estate Trailer Court with Potential and Existing Sources of Contamination



Legend

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
Contaminant Sources
Gasoline stations (without repair shop) (C15)
Printers, publishers, copiers (C37)
Asphalt and tar processing (I3)
Lumber processing and preservation (N4)
Tanks, gasoline (underground) (T12)
Tanks, diesel (underground) (T8)
Contaminated site, DEC recognized (U4)
Roads
Trails (X46)
MOA Land Parcels
Parks (X4)



N
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Map 5

APPENDIX D

Vulnerability Analysis for
South Park Estate Trailer Court
(Charts 1-14)

Chart 1. Susceptibility of the wellhead - South Park Estate Trailer Court

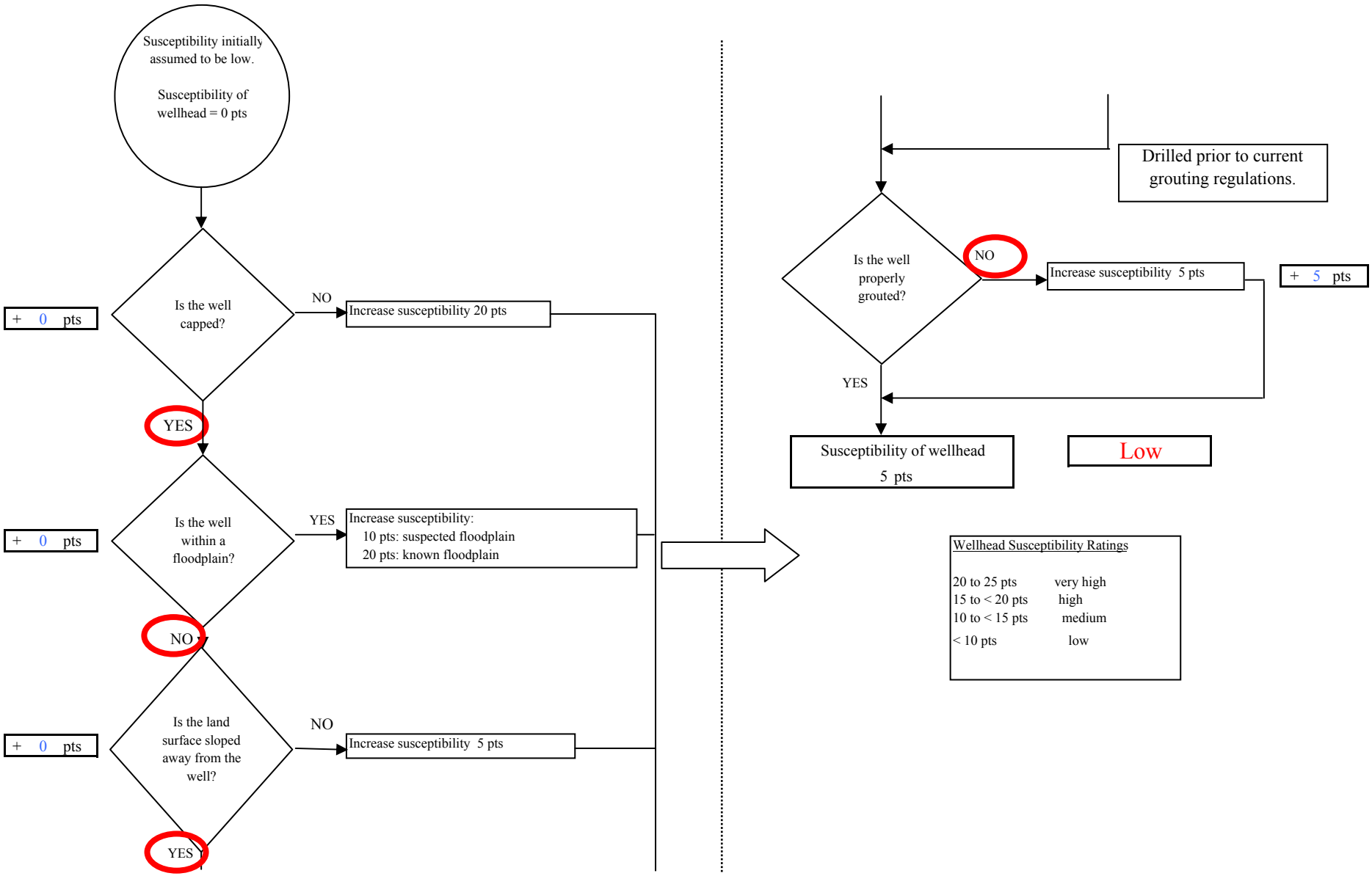


Chart 2. Susceptibility of the aquifer - South Park Estate Trailer Court

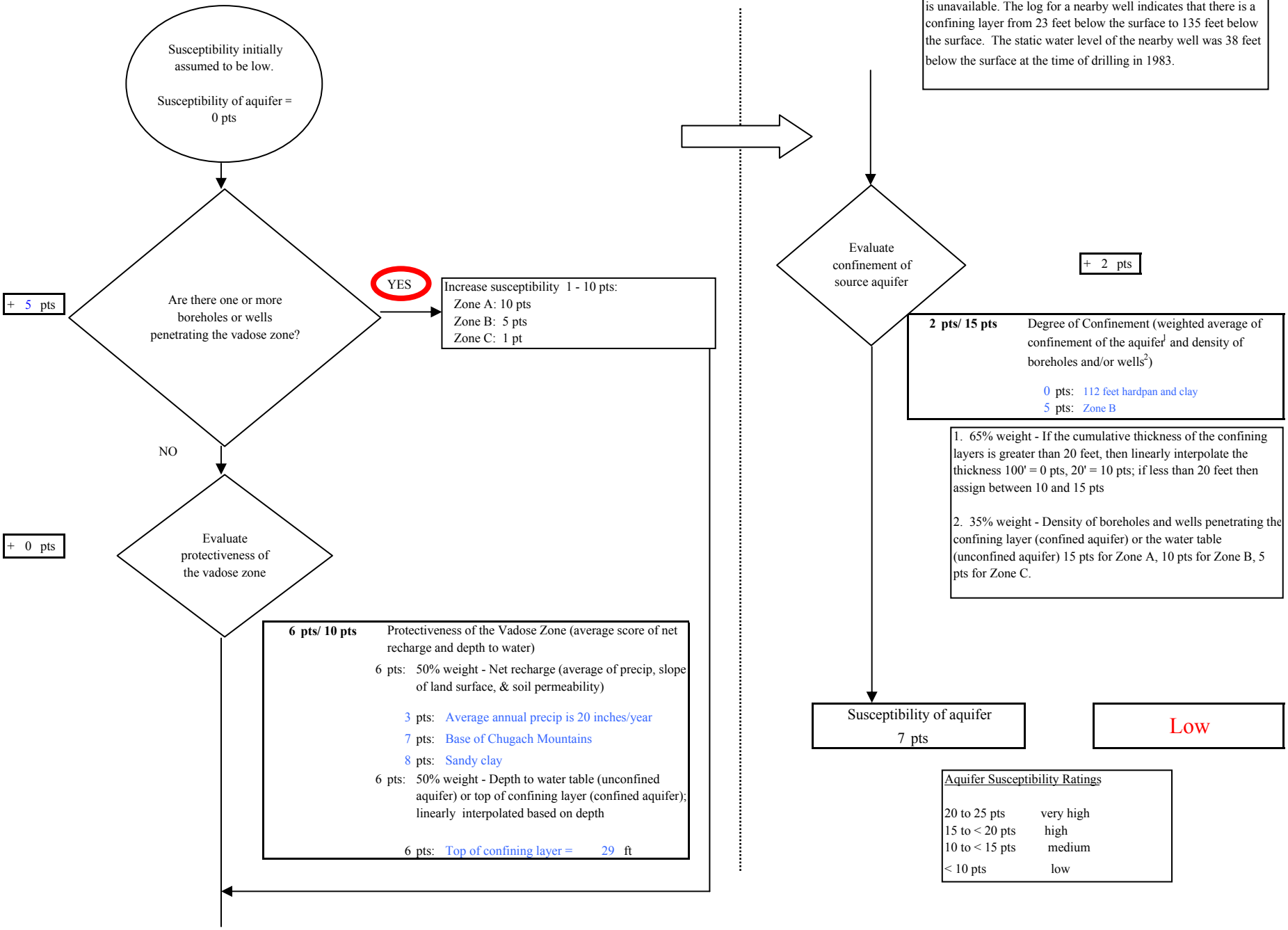
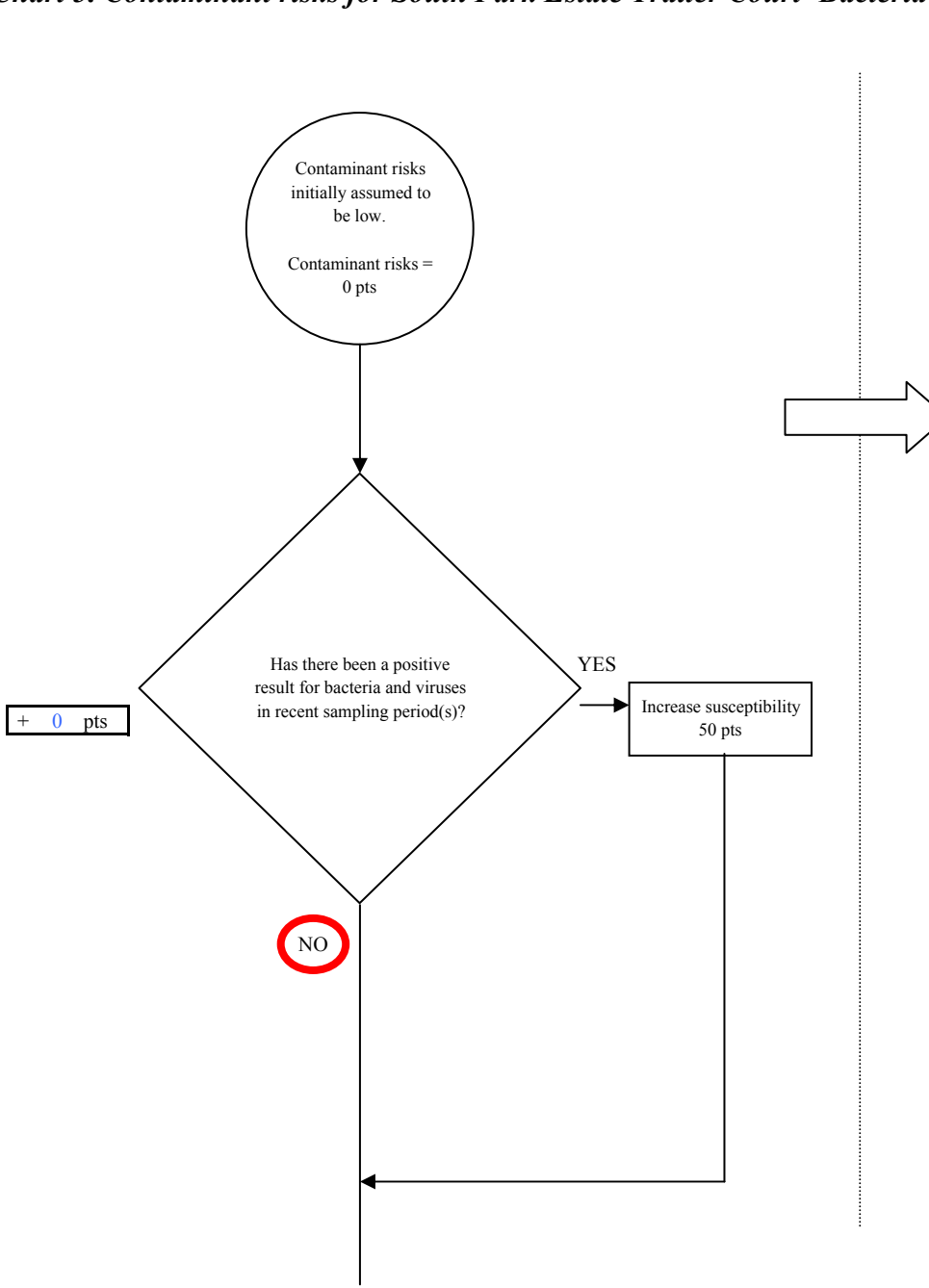
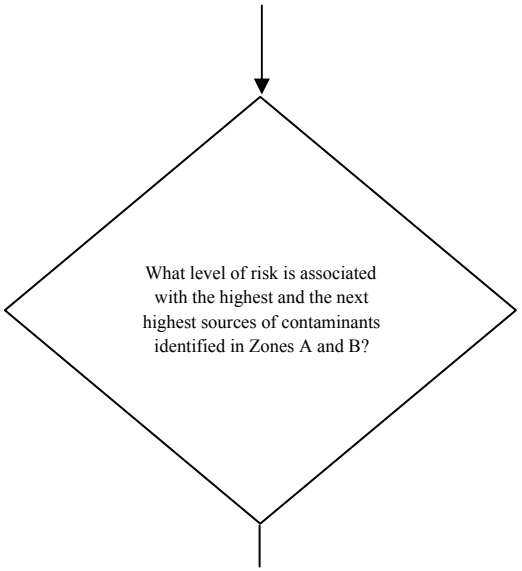


Chart 3. Contaminant risks for South Park Estate Trailer Court- Bacteria & Viruses





+ 25 pts

Risk Rankings for Contaminant Sources Identified in Zones A and B

	Zone A	Zone B	Total
Very Highs(s)	0	0	0
High(s)	0	0	0
Medium(s)	6	1	7
Low(s)	7	3	10

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

Matrix Score 25

Note: Septic systems, sewerlines, and roads are each assigned a risk ranking for each individual contaminant source in the CSI. The VA, however, counts these contaminant sources as a group and assigns a calculated number of either "lows" or "mediums" based on the density.

Chart 3. Contaminant risks for South Park Estate Trailer Court- Bacteria & Viruses

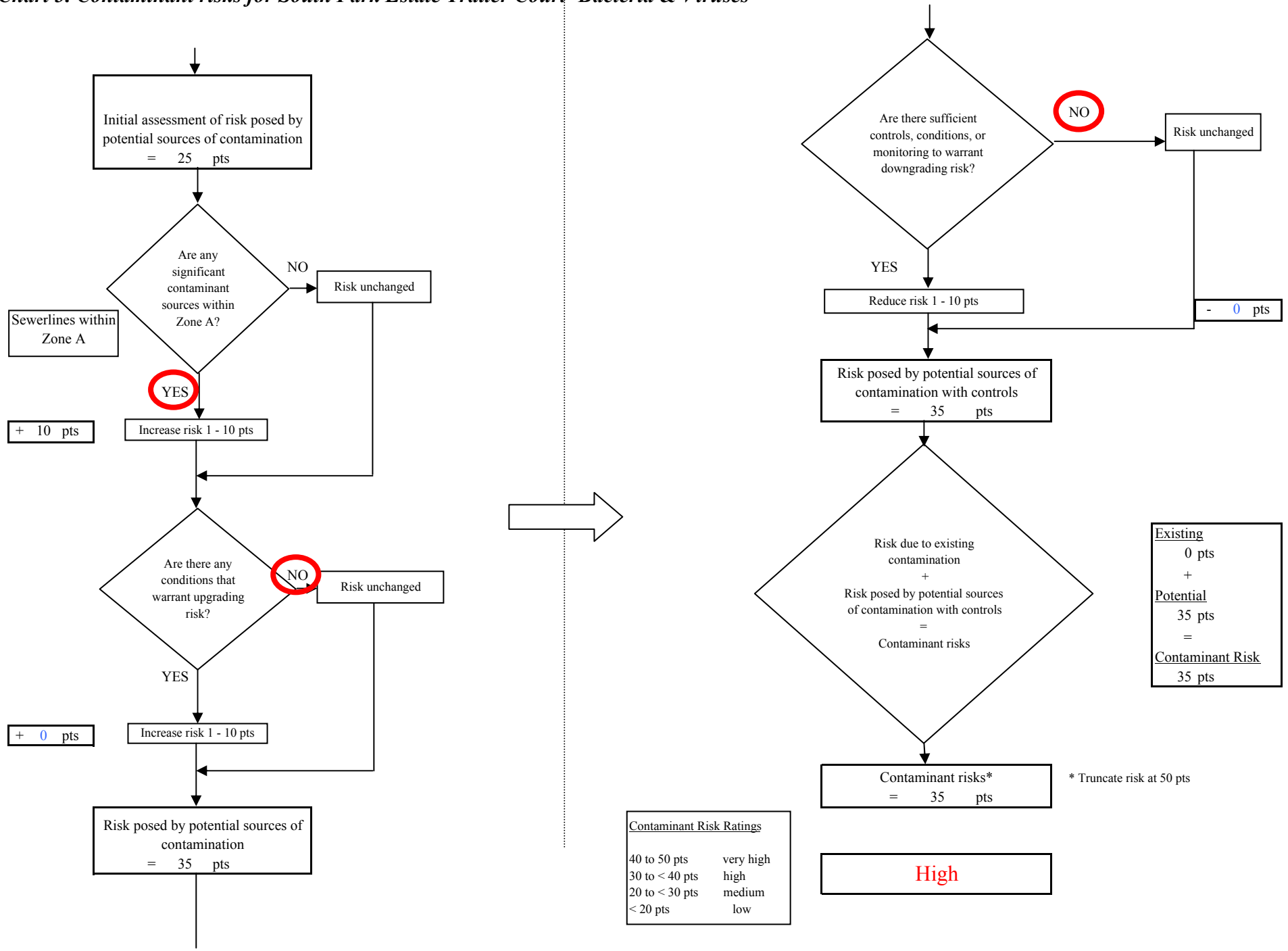


Chart 4. Vulnerability analysis for South Park Estate Trailer Court- Bacteria & Viruses

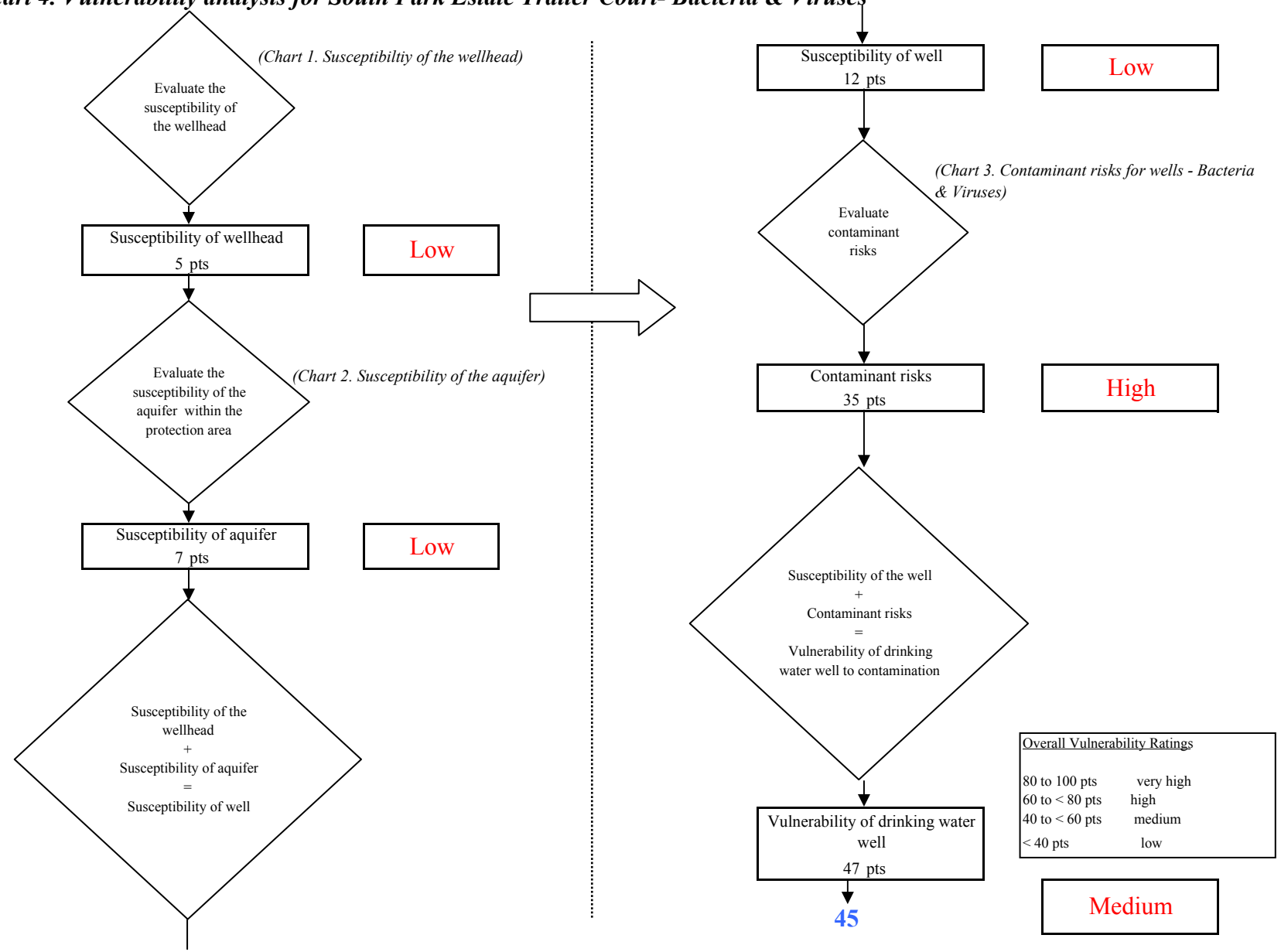


Chart 5. Contaminant risks for South Park Estate Trailer Court- Nitrates and Nitrites

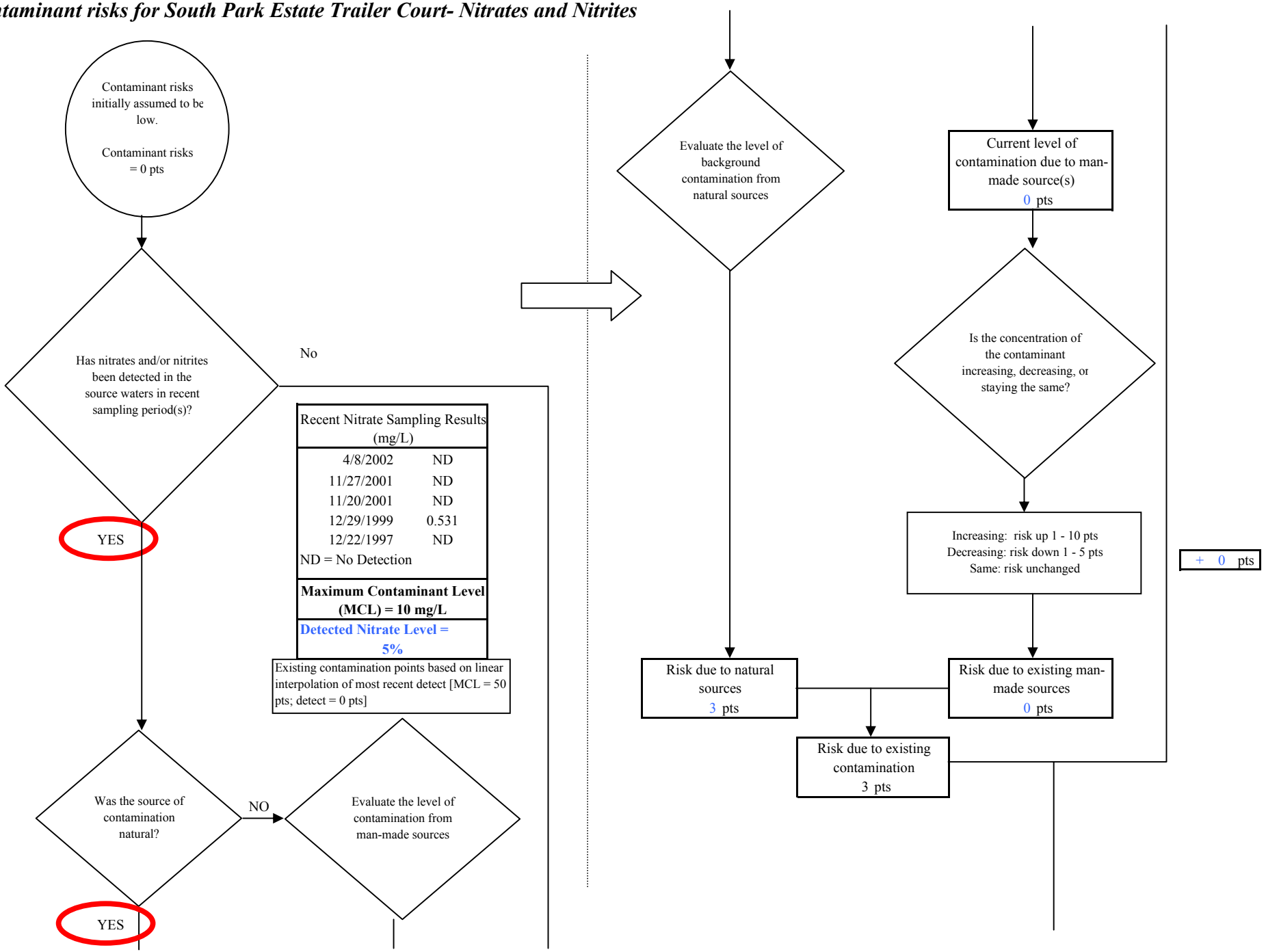


Chart 5. Contaminant risks for South Park Estate Trailer Court- Nitrates and Nitrites

+ 20 pts

What level of risk is associated with the highest and the next highest risk sources(s) of contaminants identified in Zones A, B and C?

Risk Levels for Contaminant Sources identified in Zones A, B and C

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	0	0	0
Medium(s)	2	0	2
Low(s)	13	12	25

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

Matrix Score 20

Note: Septic systems, sewerlines, and roads are each assigned a risk ranking for each individual contaminant source in the CSI. The VA, however, counts these contaminant sources as a group and assigns a calculated number of either "lows" or "mediums" based on the density.

Initial assessment of risk posed by potential sources of contamination = 20 pts

Is the source aquifer fractured rock or karst?

YES

NO

Are all of the higher risk sources beyond Zones A and B?

NO

Risk unchanged

YES

- 0 pts

Decrease risk 1 - 10 pts

Are any significant sources within Zone A?

NO

Risk unchanged

YES

Sewer lines

+ 5 pts

Increase risk 1 - 10 pts

Chart 5. Contaminant risks for South Park Estate Trailer Court- Nitrates and Nitrites

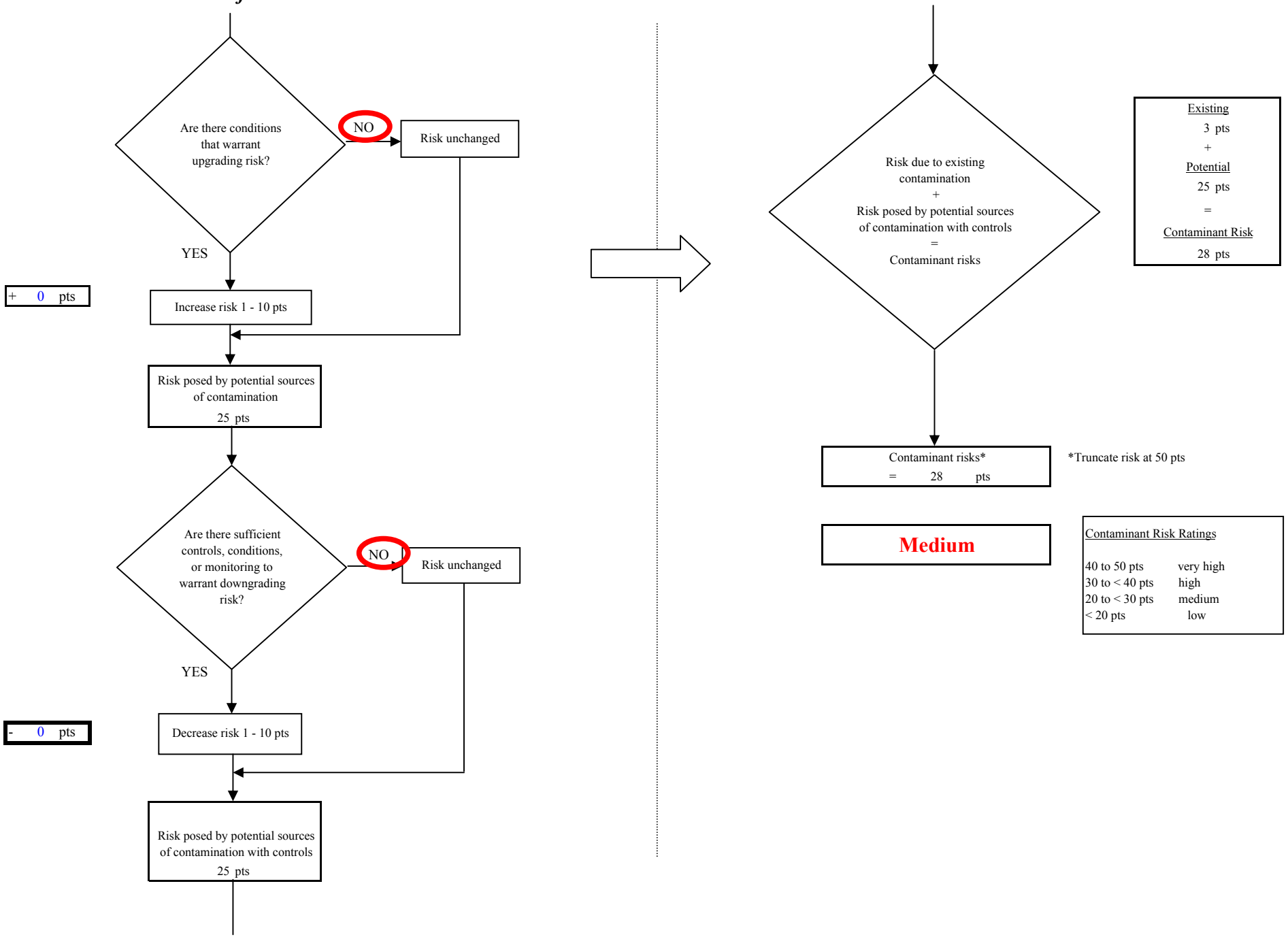


Chart 6. Vulnerability analysis for South Park Estate Trailer Court- Nitrates and Nitrites

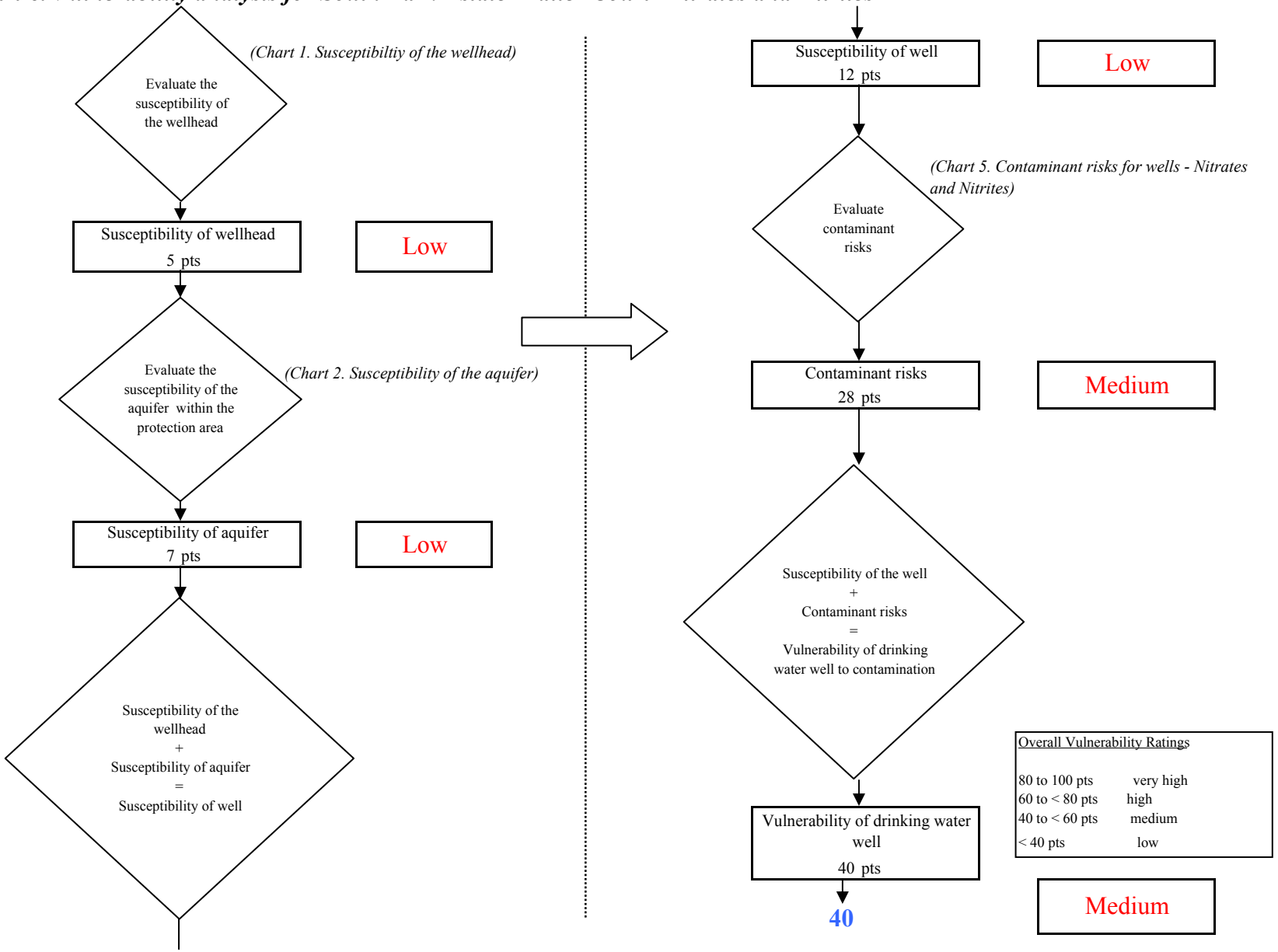


Chart 7. Contaminant risks for South Park Estate Trailer Court- Volatile Organic Chemicals

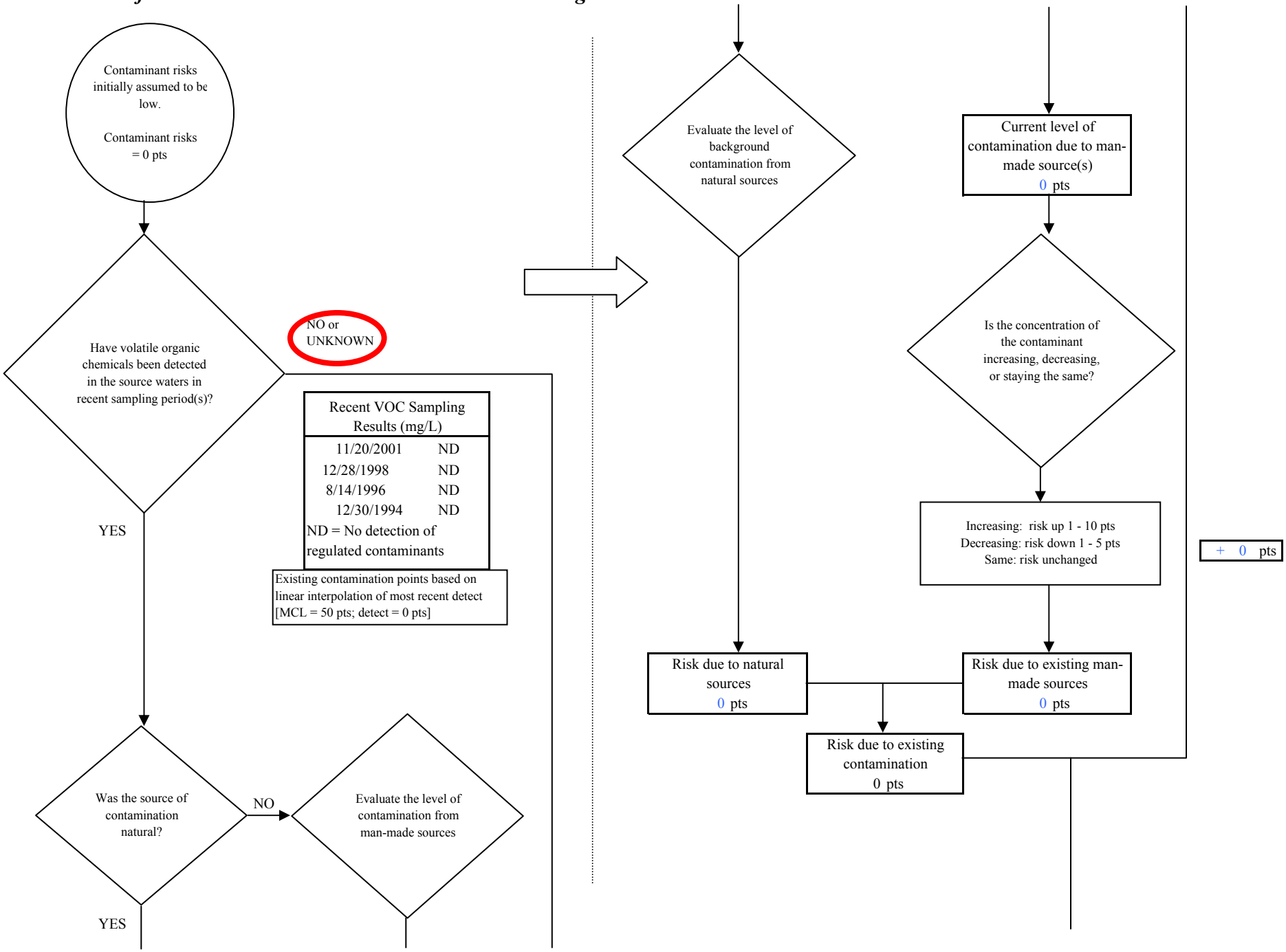


Chart 7. Contaminant risks for South Park Estate Trailer Court- Volatile Organic Chemicals

+ 50 pts

What level of risk is associated with the highest and the next highest risk sources(s) of contaminants identified in Zones A, B and C?

Risk Levels for Contaminant Sources identified in Zones A, B and C			
	Zone A	Zones B&C	Total
Very Highs(s)	0	1	1
High(s)	3	15	18
Medium(s)	2	7	9
Low(s)	9	25	34

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

Matrix Score 50

Note: Septic systems, sewerlines, and roads are each assigned a risk ranking for each individual contaminant source in the CSI. The VA, however, counts these contaminant sources as a group and assigns a calculated number of either "lows" or "mediums" based on the density.

Initial assessment of risk posed by potential sources of contamination = 50 pts

Is the source aquifer fractured rock or karst?

YES

NO

Are all of the higher risk sources beyond Zones A and B?

NO

Risk unchanged

YES

Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO

Risk unchanged

Rubber fabrication and/or manufacturing

YES

Increase risk 1 - 10 pts

+ 10 pts

Chart 7. Contaminant risks for South Park Estate Trailer Court- Volatile Organic Chemicals

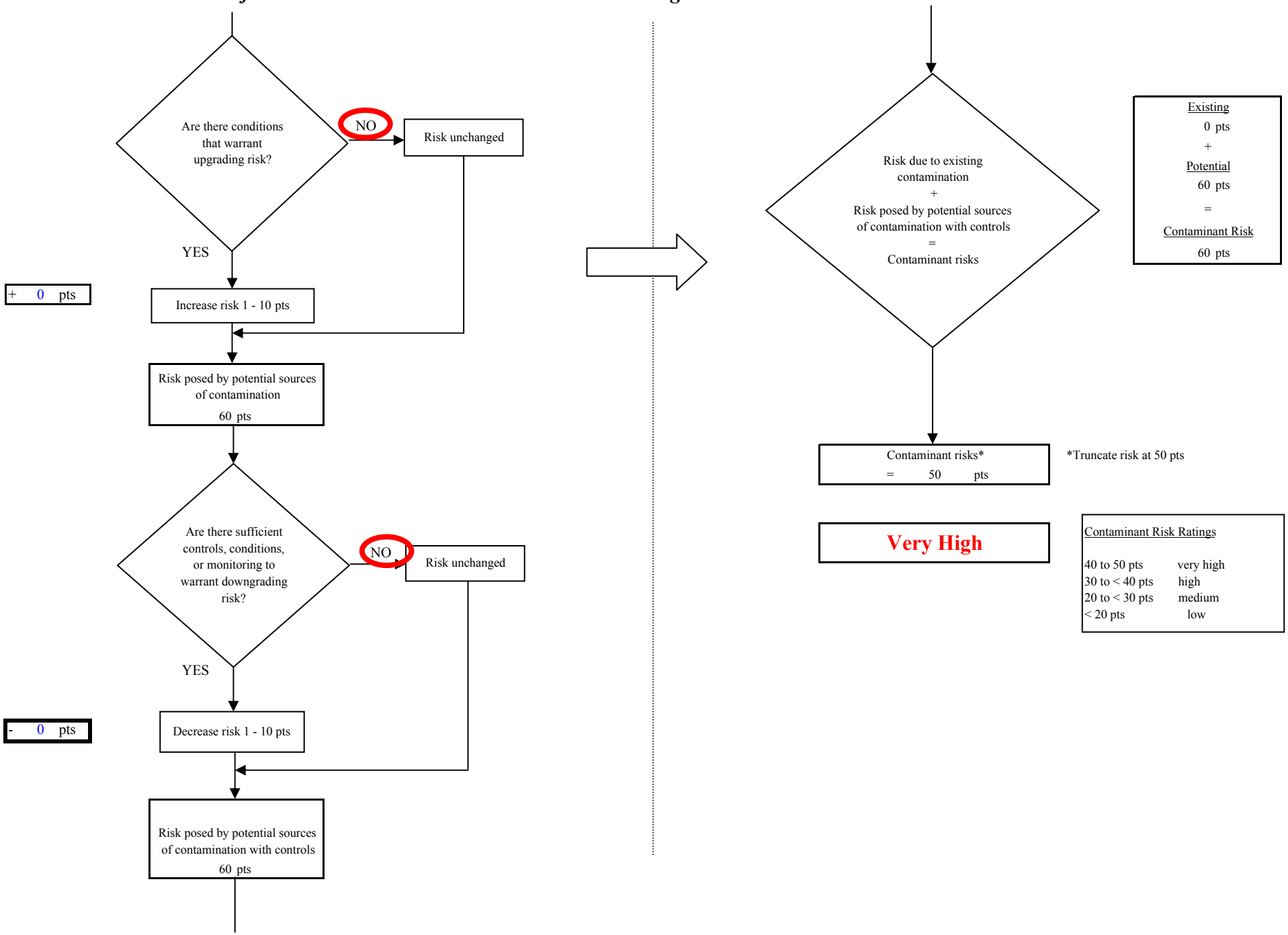


Chart 8. Vulnerability analysis for South Park Estate Trailer Court- Volatile Organic Chemicals

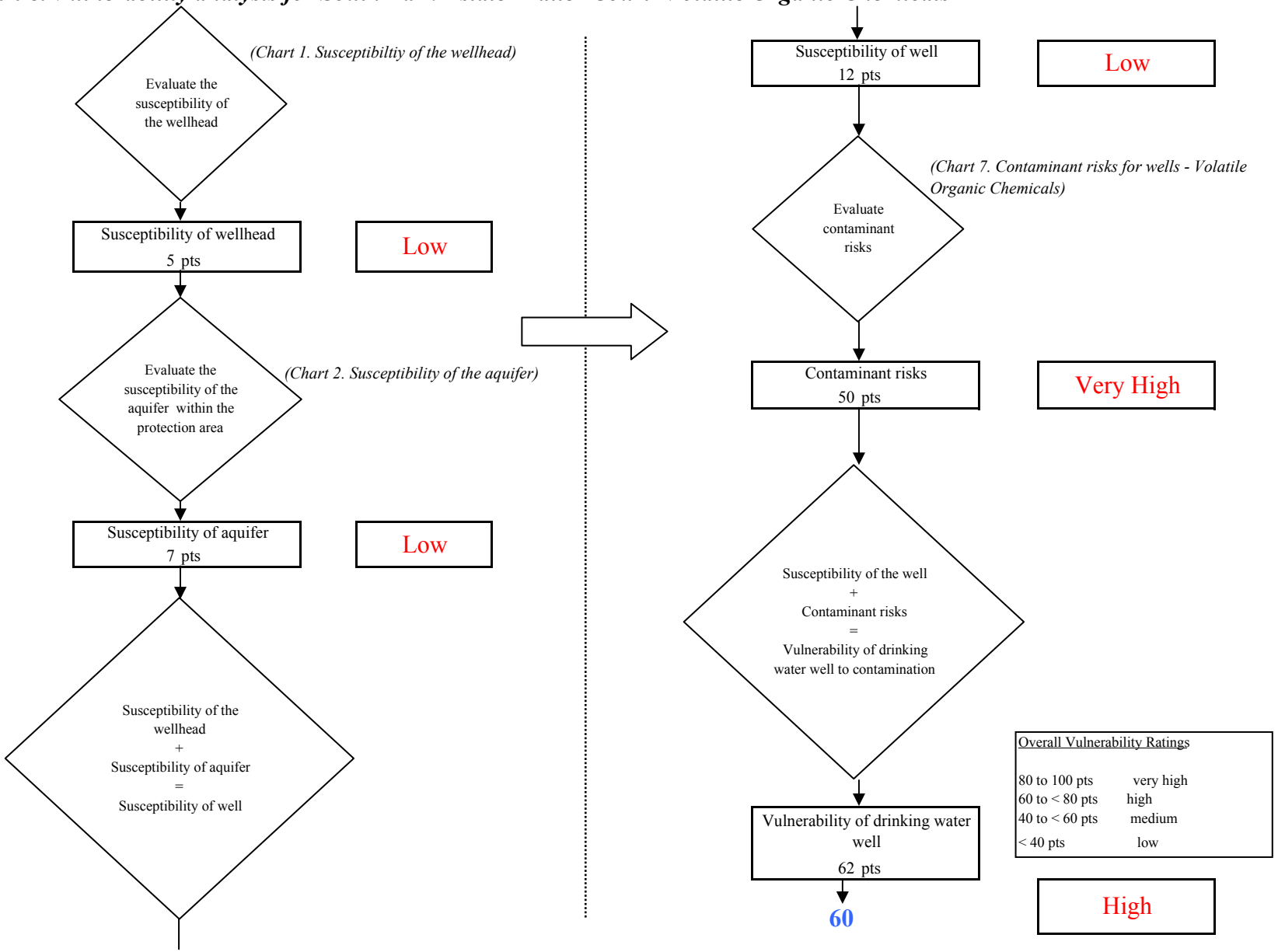


Chart 9. Contaminant risks for South Park Estate Trailer Court- Heavy Metals, Cyanide and Other Inorganic Chemicals

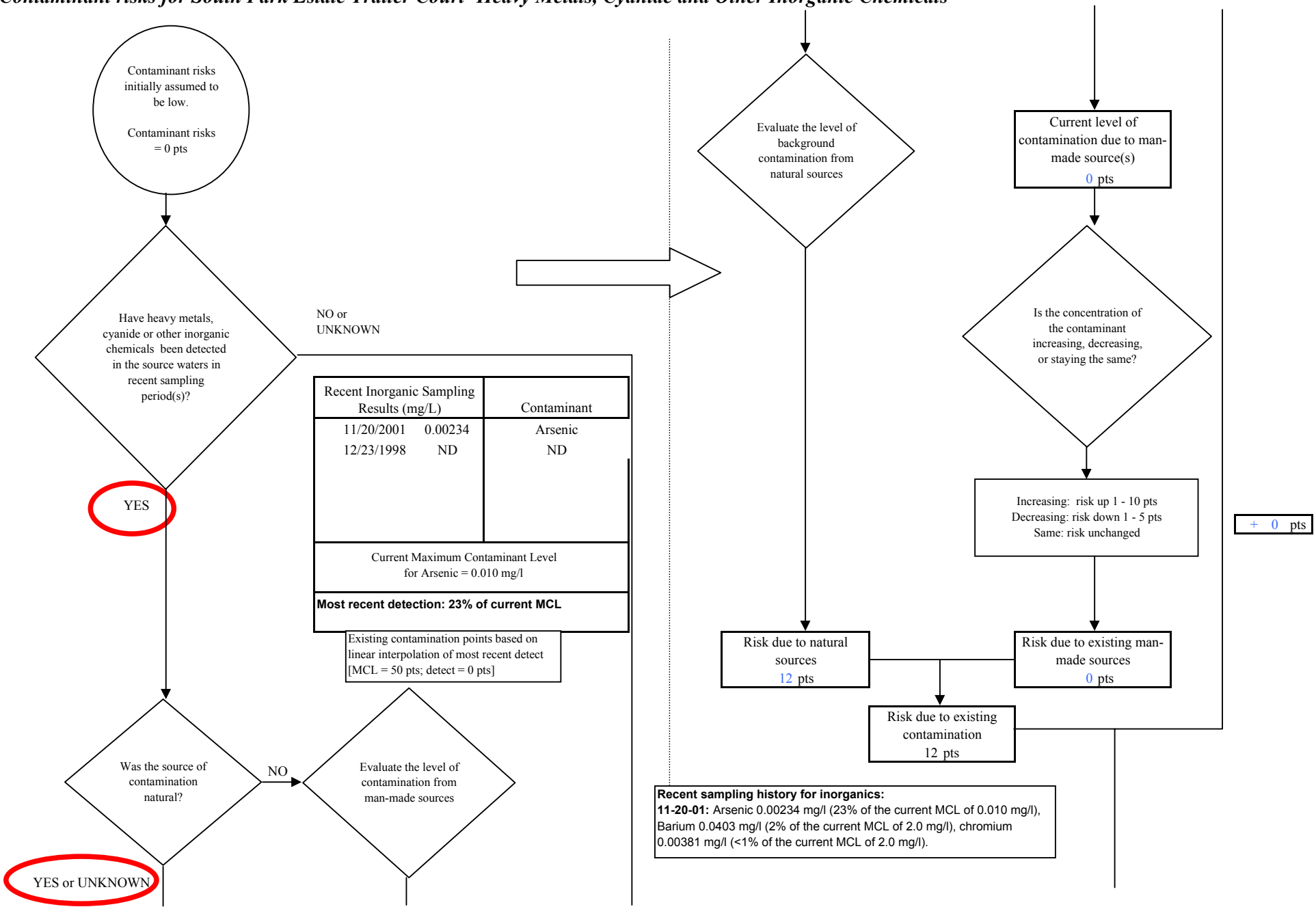


Chart 9. Contaminant risks for South Park Estate Trailer Court- Heavy Metals, Cyanide and Other Inorganic Chemicals

+ 50 pts

What level of risk is associated with the highest and the next highest risk sources(s) of contaminants identified in Zones A, B and C?

Risk Levels for Contaminant Sources identified in Zones A, B and C			
	Zone A	Zones B&C	Total
Very Highs(s)	0	1	1
High(s)	0	3	3
Medium(s)	3	11	14
Low(s)	9	27	36

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

Matrix Score 50

Note: Septic systems, sewerlines, and roads are each assigned a risk ranking for each individual contaminant source in the CSI. The VA, however, counts these contaminant sources as a group and assigns a calculated number of either "lows" or "mediums" based on the density.

Initial assessment of risk posed by potential sources of contamination = 50 pts

Is the source aquifer fractured rock or karst?

YES

NO

Are all of the higher risk sources beyond Zones A and B?

NO → Risk unchanged

YES → Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO → Risk unchanged

YES → Increase risk 1 - 10 pts

Underground fuel tanks, print shops and autobody shops.

+ 10 pts

Chart 9. Contaminant risks for South Park Estate Trailer Court- Heavy Metals, Cyanide and Other Inorganic Chemicals

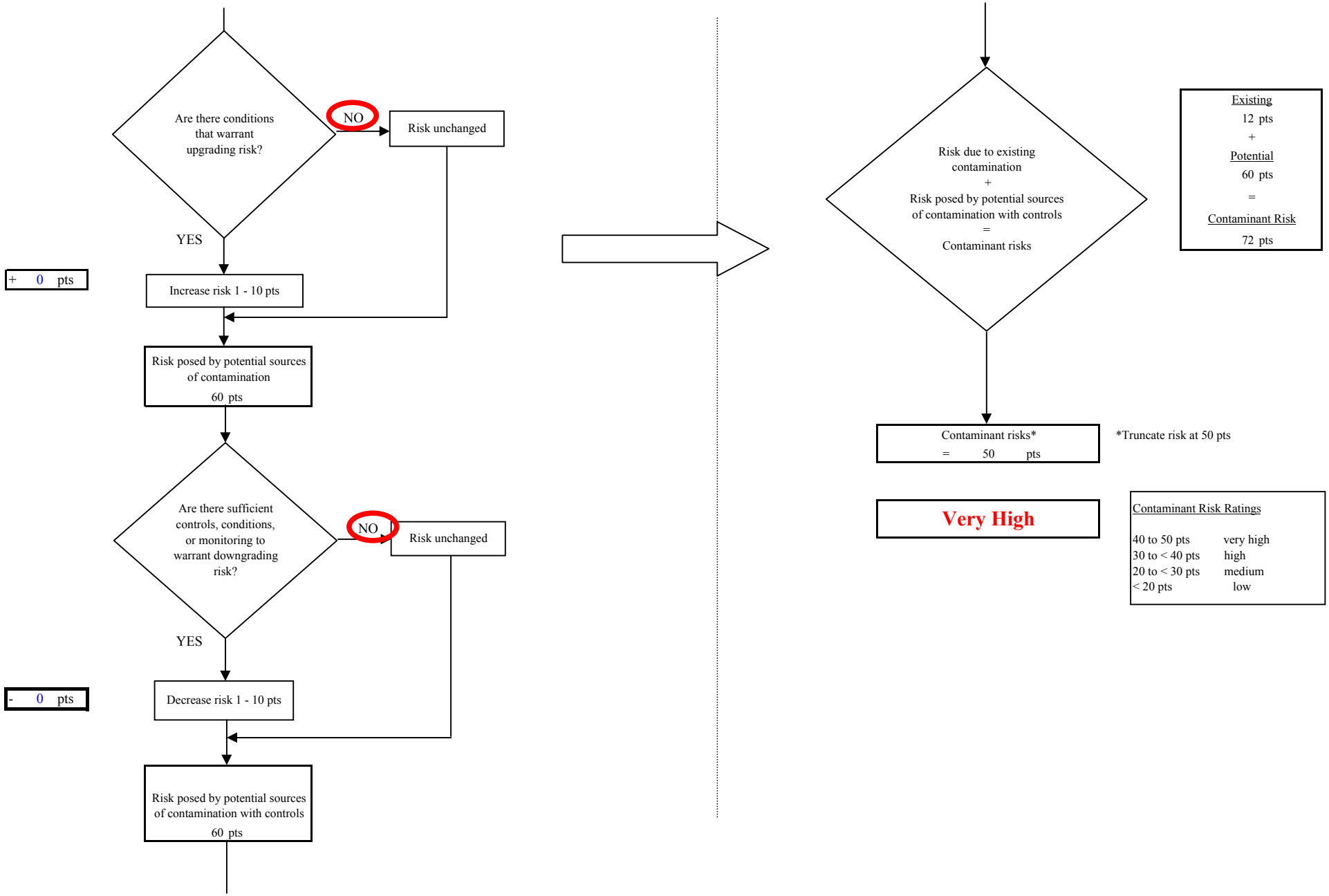


Chart 10. Vulnerability analysis for South Park Estate Trailer Court- Heavy Metals, Cyanide and Other Inorganic Chemicals

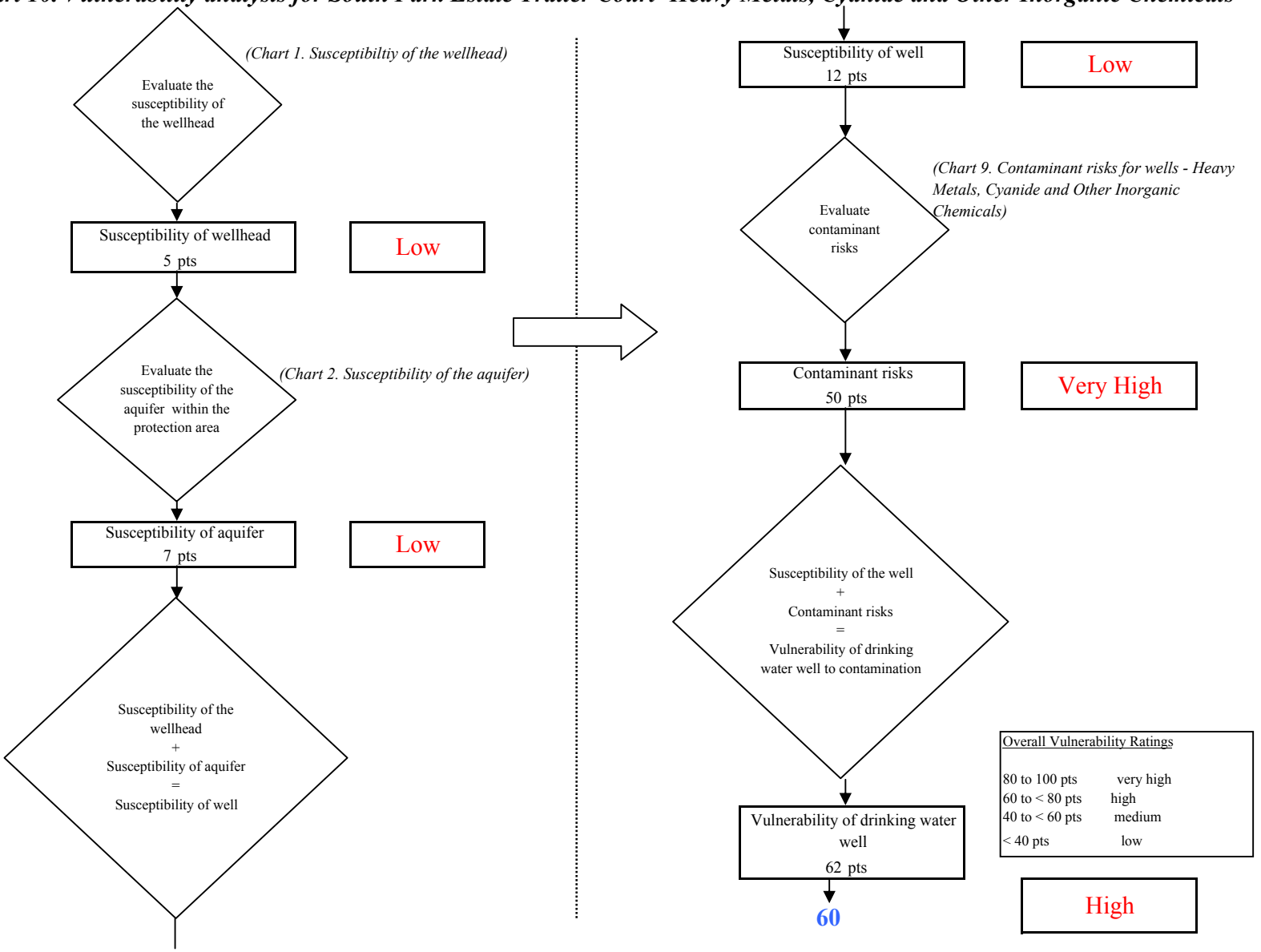


Chart 11. Contaminant risks for South Park Estate Trailer Court- Synthetic Organic Chemicals

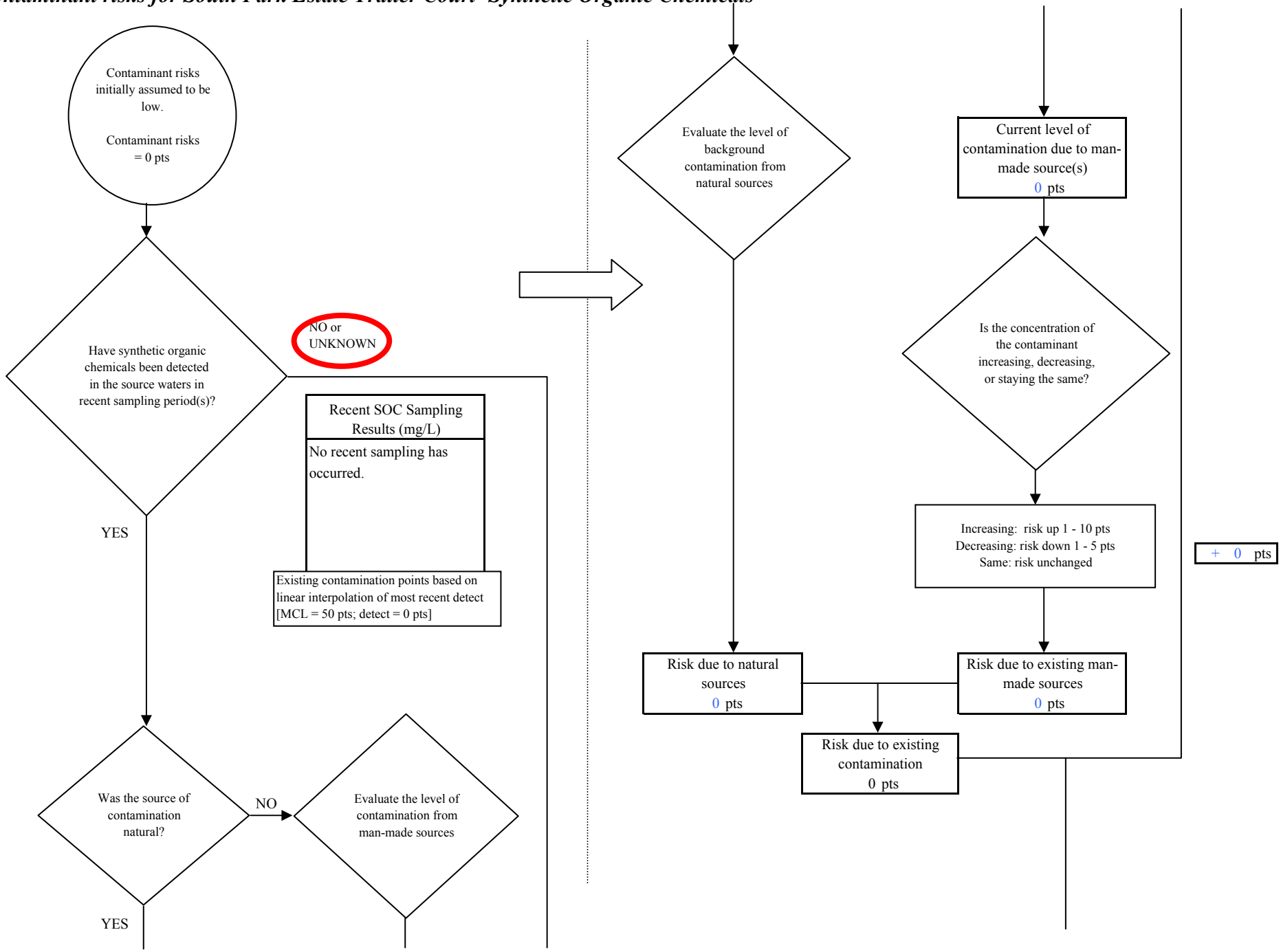
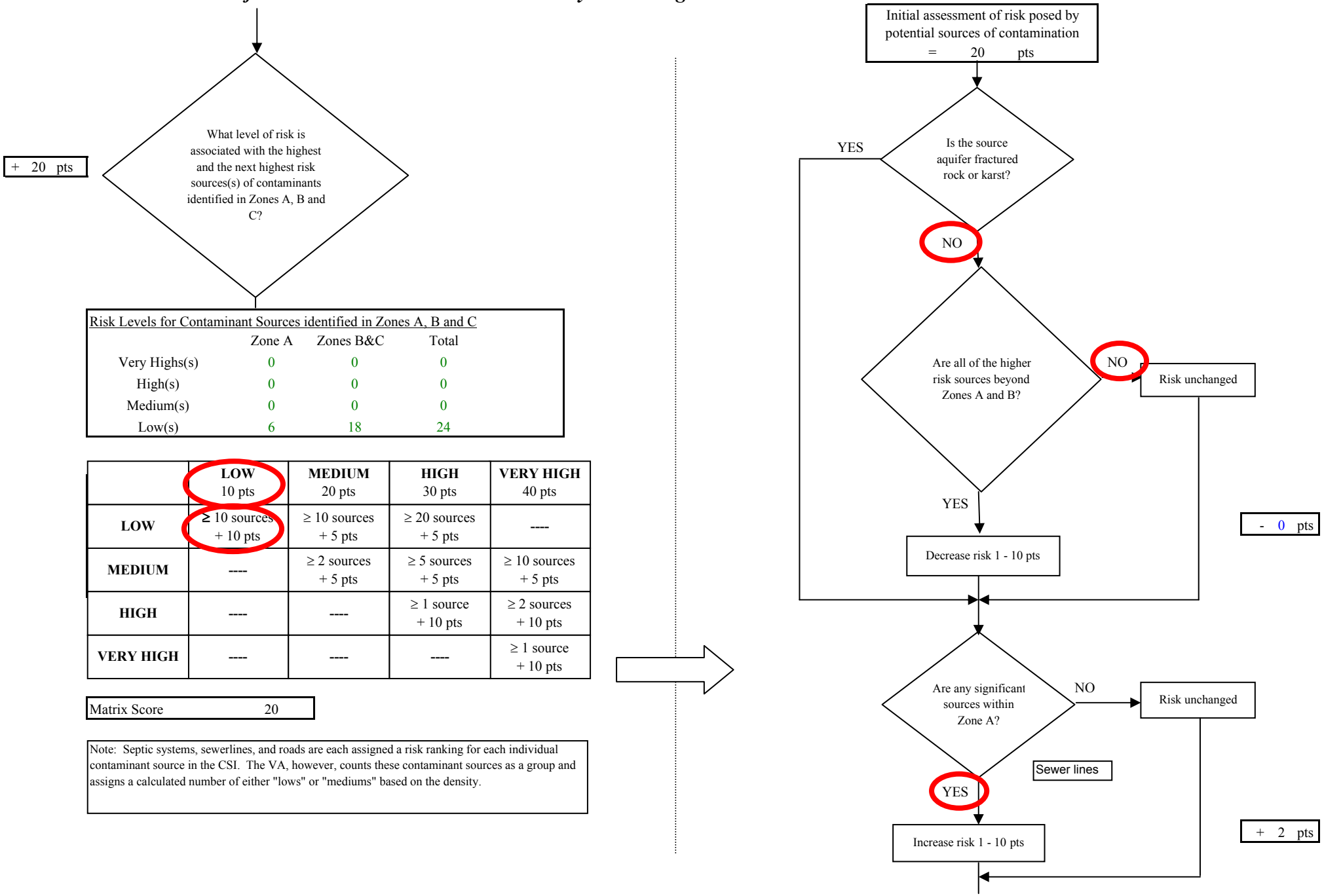


Chart 11. Contaminant risks for South Park Estate Trailer Court- Synthetic Organic Chemicals



Risk Levels for Contaminant Sources identified in Zones A, B and C

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	0	0	0
Medium(s)	0	0	0
Low(s)	6	18	24

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

Matrix Score 20

Note: Septic systems, sewerlines, and roads are each assigned a risk ranking for each individual contaminant source in the CSI. The VA, however, counts these contaminant sources as a group and assigns a calculated number of either "lows" or "mediums" based on the density.

Chart 11. Contaminant risks for South Park Estate Trailer Court- Synthetic Organic Chemicals

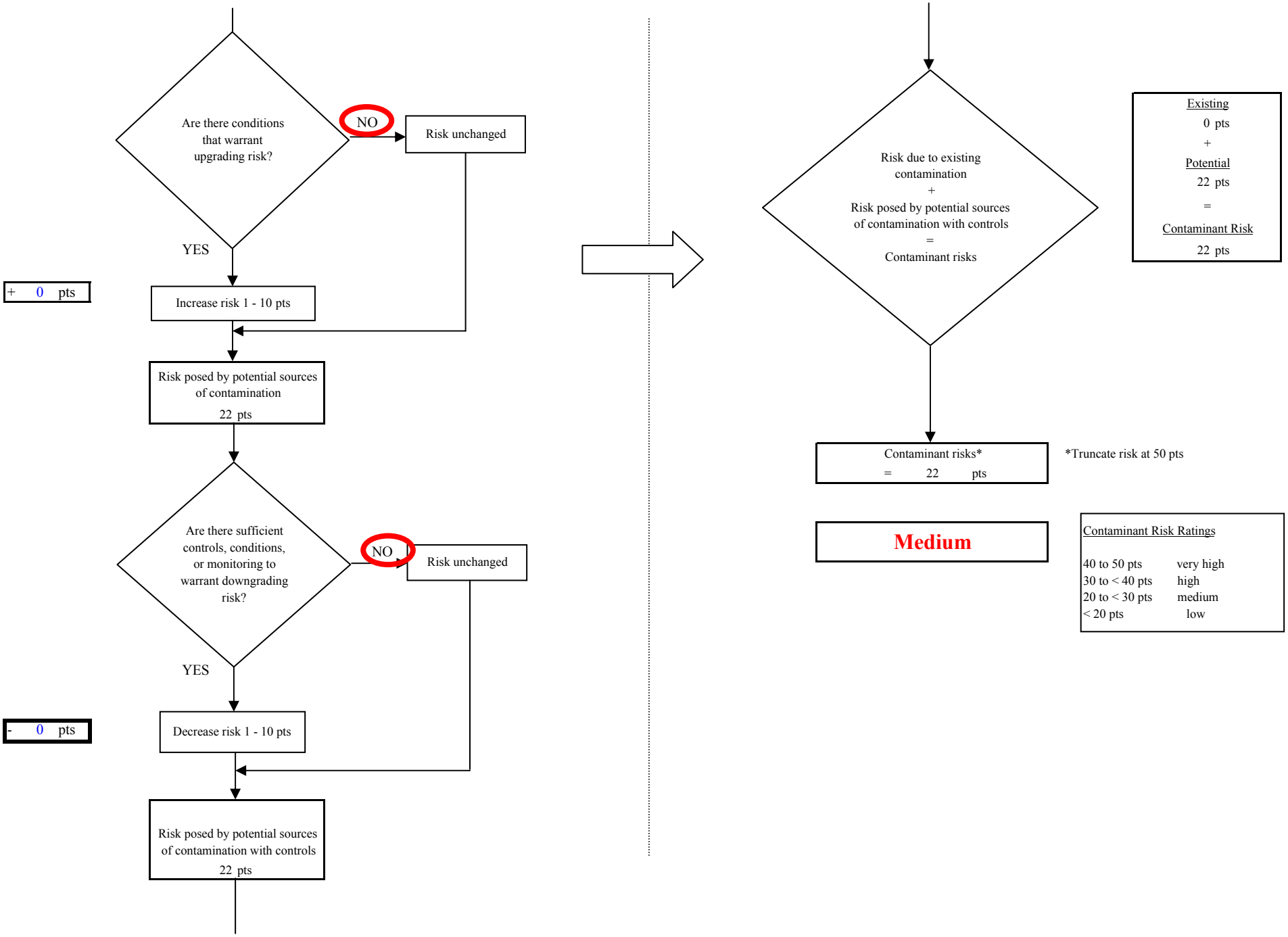


Chart 12. Vulnerability analysis for South Park Estate Trailer Court- Synthetic Organic Chemicals

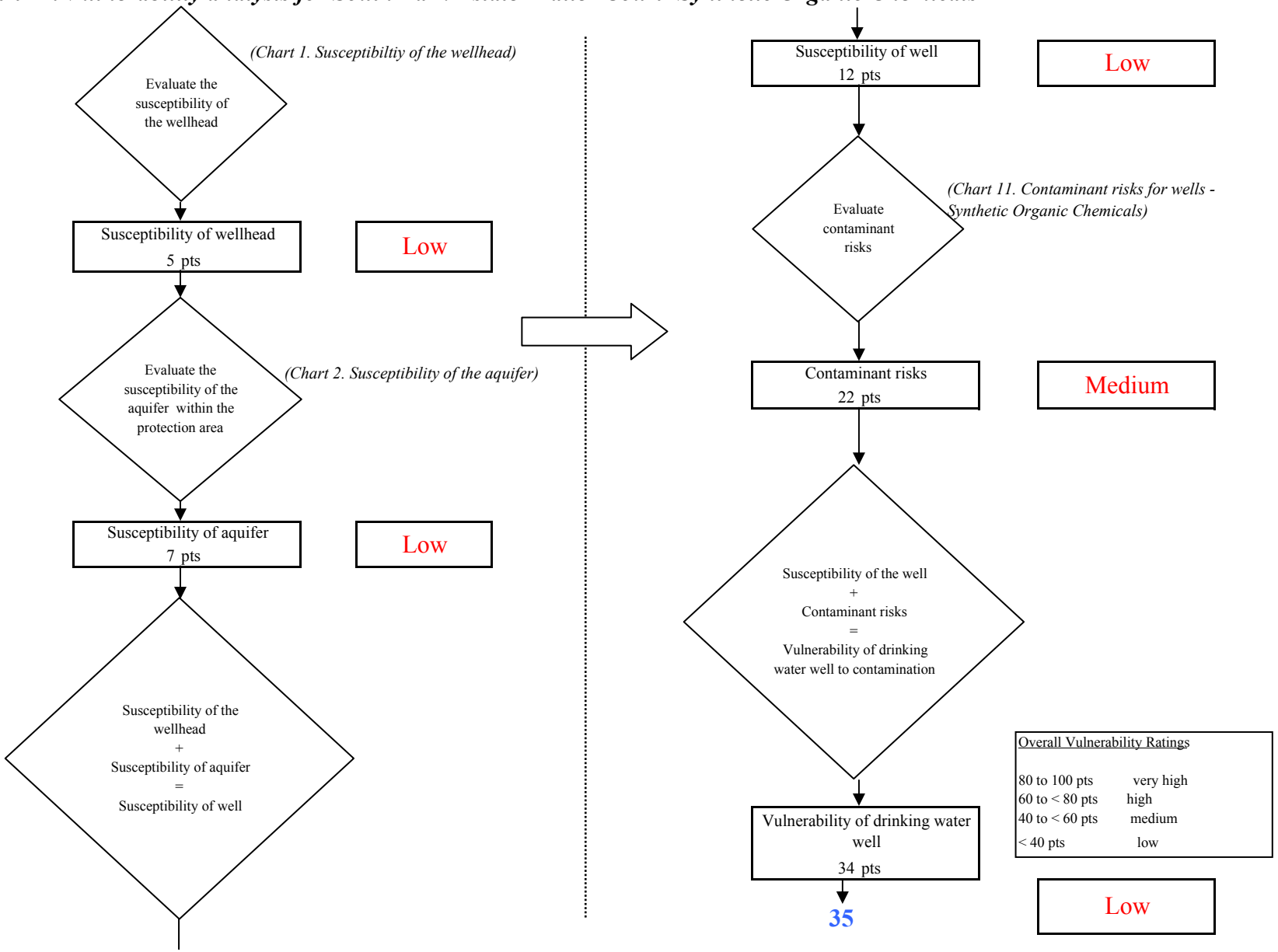


Chart 13. Contaminant risks for South Park Estate Trailer Court- Other Organic Chemicals

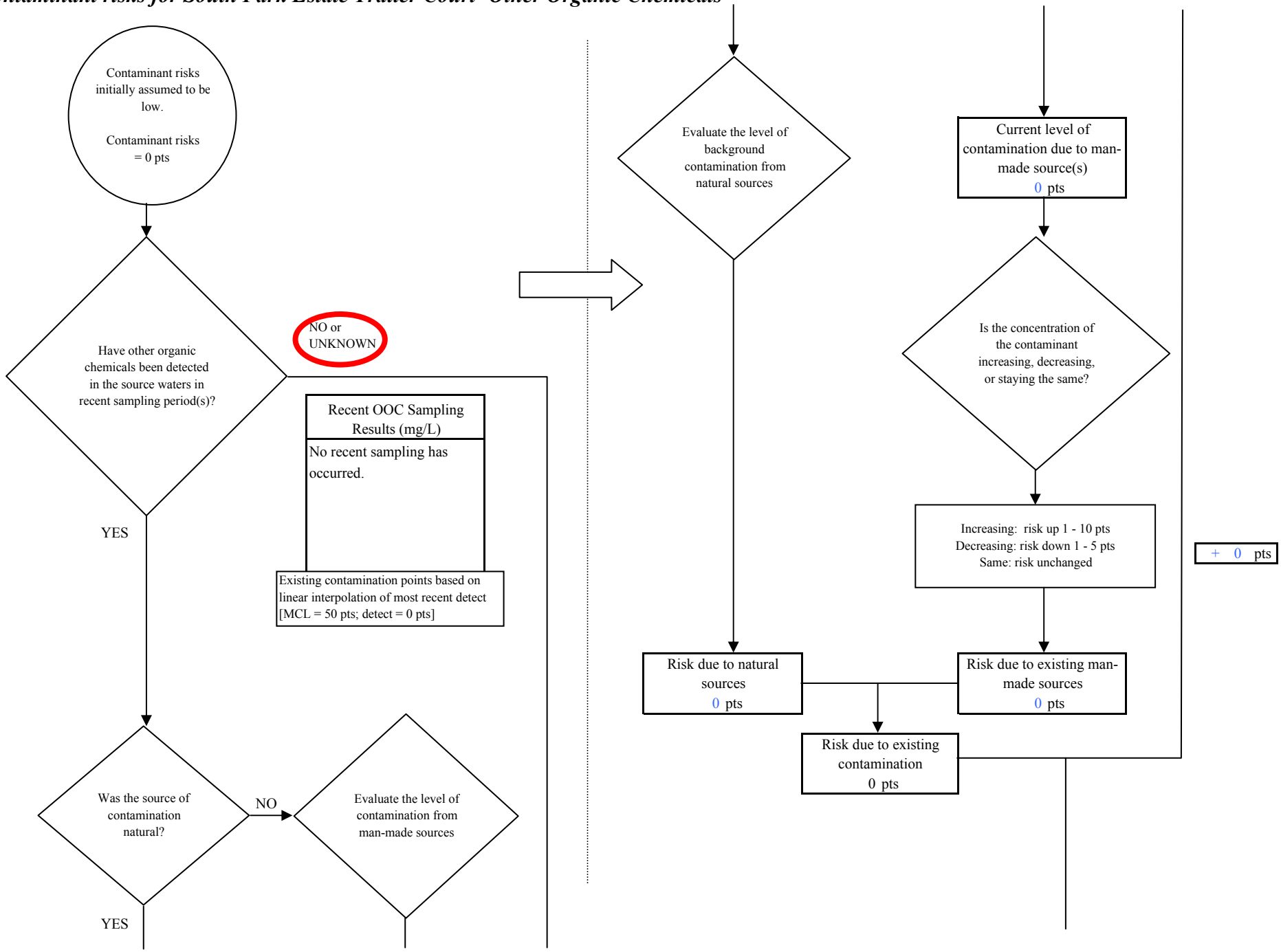


Chart 13. Contaminant risks for South Park Estate Trailer Court- Other Organic Chemicals

+ 40 pts

What level of risk is associated with the highest and the next highest risk sources(s) of contaminants identified in Zones A, B and C?

Risk Levels for Contaminant Sources identified in Zones A, B and C

	Zone A	Zones B&C	Total
Very Highs(s)	0	1	1
High(s)	0	1	1
Medium(s)	1	4	5
Low(s)	7	12	19

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

Matrix Score 40

Note: Septic systems, sewerlines, and roads are each assigned a risk ranking for each individual contaminant source in the CSI. The VA, however, counts these contaminant sources as a group and assigns a calculated number of either "lows" or "mediums" based on the density.

Initial assessment of risk posed by potential sources of contamination = 40 pts

Is the source aquifer fractured rock or karst?

YES

NO

Are all of the higher risk sources beyond Zones A and B?

NO → Risk unchanged

YES → Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO → Risk unchanged

autobody repair shops

YES → Increase risk 1 - 10 pts

+ 5 pts

Chart 13. Contaminant risks for South Park Estate Trailer Court- Other Organic Chemicals

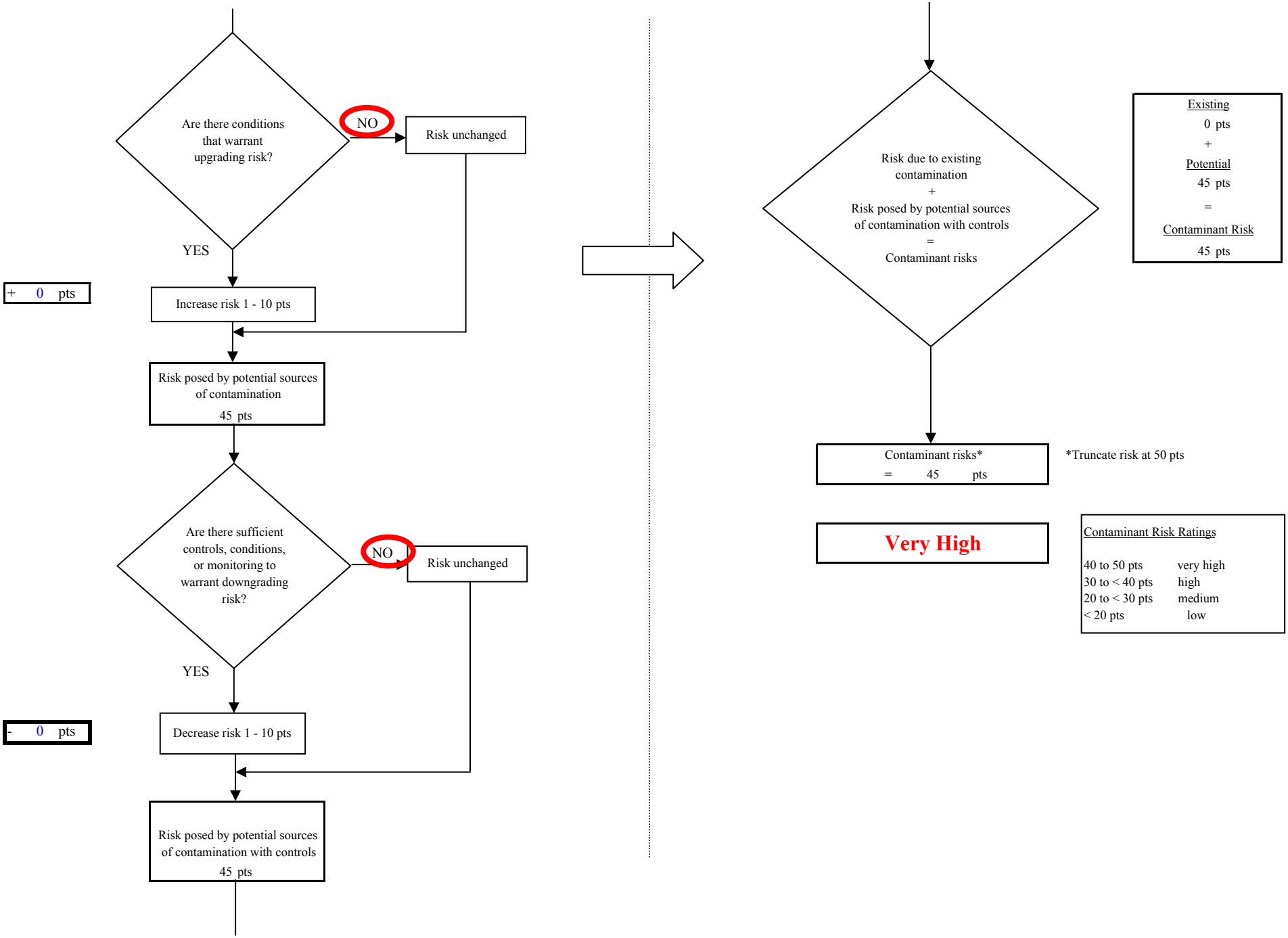


Chart 14. Vulnerability analysis for South Park Estate Trailer Court- Other Organic Chemicals