Source Water Assessment

A Hydrogeologic Susceptibility and Vulnerability Assessment for East Anchorage Mobile Home Court, Anchorage, Alaska
PWSID # 211025.001 and 211025.002

DRINKING WATER PROTECTION PROGRAM REPORT 751

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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Source Water Assessment for East Anchorage Mobile Home Court 's Source of Public Drinking Water,
Anchorage, Alaska

Drinking Water Protection Program
Alaska Department of Environmental Conservation

EXECUTIVE SUMMARY

The public water system for East Anchorage Mobile Home Court is a Class A (community) water system consisting of two wells-Well No.1 and Well No. 2 in the Anchorage area. Identified potential and current sources of contaminants for East Anchorage Mobile Home Court Well No. 1, No. 2 include: sewer lines, roads, motor vehicle repair shops, recreation trails, gasoline stations, underground fuel tanks, active Leaking Underground Storage Tank (LUST) sites. 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, East Anchorage Mobile Home Court Well No. 1 received a vulnerability rating of **Low** for bacteria and viruses, synthetic organic chemicals and other organic chemicals, **Medium** for nitrates and/or nitrites and volatile organic chemicals and **High** for heavy metals, cyanide, other organic chemicals. Well No. 2 received a vulnerability rating of **Low** for bacteria and viruses, nitrates and/or nitrites, volatile organic chemicals, synthetic organic chemicals and other organic chemicals and **High** for heavy metals.

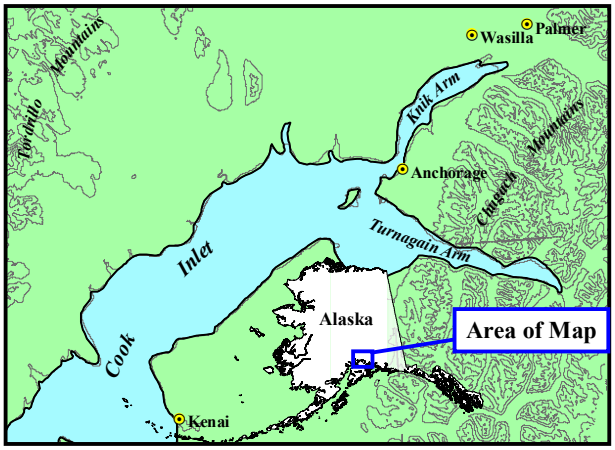

Figure 1. Index map showing the location of Anchorage, Alaska

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.

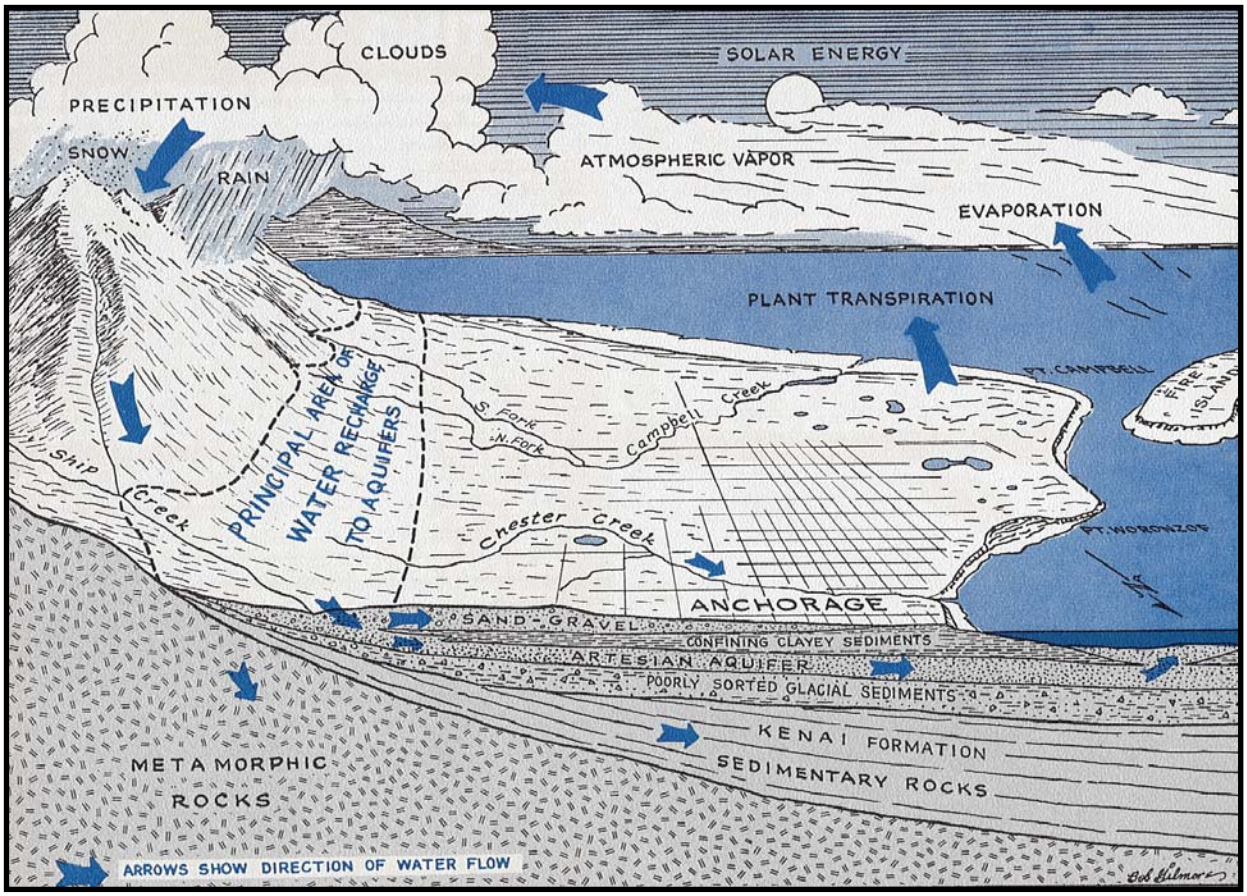

Figure 2. Generalized hydrologic cycle in the Anchorage area [*Barnwell, George, Dearborn,Weeks, and Zenone*, 1972].

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.

EAST ANCHORAGE MOBILE HOME COURT 'S PUBLIC DRINKING WATER SYSTEM

East Anchorage Mobile Home Court is a Class A (community) water system. The system consists of two wells. The two wells that make up the public water system are located approximately 500 feet south of the New Glen Highway. (See Map 1 of Appendix A). This area is at an elevation of approximately 200 feet above sea level.

The well log for Well No.1 indicates that the depth of the well is 133 feet below surface level (bsl). The well log for Well No. 2 is not available. Due to their close proximity, the well log for Well No.1 is used for the assessment of Well No. 2.

The 1997 Sanitary Survey indicates that both wells are 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. Due to the date that the well was installed it is suspected that the well was not grouted according to ADEC regulations. Proper grouting provides added protection against contaminants traveling along the well casing and into source waters.

The well log for Well No. 1 indicates that there are multiple confining layers to a depth of 123 feet below the surface. These layers may provide protection from contaminants migrating downward, however near the base of the Chugach Mountains; these clay layers tend to thin out 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.

The system operates 365 days per year and serves 480 residents through 94 service connections.

EAST ANCHORAGE MOBILE HOME COURT'S 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 East Anchorage Mobile Home 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 East Anchorage Mobile Home Court 's 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 & 3 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 EAST ANCHORAGE MOBILE HOME 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 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 wells serving East Anchorage Mobile Home Court.

Table 2. Susceptibility of Well No.1, No.2 and No. 3

	Score	Rating
Susceptibility of the Wellhead	5	Low
Susceptibility of the Aquifer	9	Low
Natural Susceptibility	14	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

Well No. 1

Category	Score	Rating
Bacteria and Viruses	25	Medium
Nitrates and/or Nitrites	28	Medium
Volatile Organic Chemicals	27	Medium
Heavy Metals, Cyanide, and Other Inorganic Chemicals	50	Very High
Synthetic Organic Chemicals	12	Low
Other Organic Chemicals	22	Medium

Well No. 2

Category	Score	Rating
Bacteria and Viruses	12	Low
Nitrates and/or Nitrites	15	Low
Volatile Organic Chemicals	22	Medium
Heavy Metals, Cyanide, and Other Inorganic Chemicals	50	Very High
Synthetic Organic Chemicals	10	Low
Other Organic Chemicals	22	Medium

Table 4. Overall Vulnerability

Well No. 1

Category	Score	Rating
Bacteria and Viruses	35	Low
Nitrates and Nitrites	40	Medium
Volatile Organic Chemicals	40	Medium
Heavy Metals, Cyanide and Other Inorganic Chemicals	65	High
Synthetic Organic Chemicals	25	Low
Other Organic Chemicals	35	Low

Well No. 2

Category	Score	Rating
Bacteria and Viruses	25	Low
Nitrates and Nitrites	30	Low
Volatile Organic Chemicals	35	Low
Heavy Metals, Cyanide and Other Inorganic Chemicals	65	High
Synthetic Organic Chemicals	25	Low
Other Organic Chemicals	35	Low

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.

Bacteria and Viruses

Well No. 1:
The contaminant risk for bacteria and viruses is medium with sewer lines and roads presenting the most significant risk to the drinking water well (See Chart 3 – Contaminant Risks for Bacteria and Viruses in Appendix D).

Sampling indicates that no bacteria and/or viruses have been detected in the source waters.

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

Well No. 2:
The contaminant risk for bacteria and viruses is low with roads presenting the most significant risk to the drinking water well (See Chart 3 – Contaminant Risks for Bacteria and Viruses in Appendix D).

Sampling indicates that no bacteria and/or viruses have been detected in the source waters.

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

Nitrates and Nitrites

Well No. 1
The contaminant risk for nitrates and nitrites is medium with sewer lines and roads presenting the most

significant risk to the drinking water well.

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]. Sampling history for East Anchorage Mobile Home Court indicates low concentrations of nitrates have been detected in source waters. The most recent nitrate detection occurred on April 19, 2002, at approximately 5% of the Maximum contaminant Level or MCL. (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. 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.

Well No. 2
The contaminant risk for nitrates and nitrites is low with a road presenting the most significant risk to the drinking water well.

Sampling occurs after the water from Well No. 1 and Well No. 2 are mixed, thus the sampling results are the same for both wells. The most recent sampling detected 5% of the MCL. (See Chart 5 - Contaminant Risks for Nitrates and/or Nitrites in Appendix D).

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 low.

Volatile Organic Chemicals
Well No. 1
The contaminant risk for volatile organic chemicals is medium with sewer lines, roads, heavy equipment storage, motor vehicle repair shops and gasoline stations presenting the most significant risk for volatile organic chemicals (See Chart 7 – Contaminant Risks for Volatile Organic Chemicals in Appendix D).

Sampling indicates that no regulated 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 wells, the overall vulnerability of the wells to contamination is medium.

Well No. 3:
The contaminant risk for volatile organic chemicals is medium with roads, heavy equipment storage, motor vehicle repair shops and gasoline stations presenting the most significant risk for volatile organic chemicals (See Chart 7 – Contaminant Risks for Volatile Organic Chemicals in Appendix D).

Sampling indicates that no regulated 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 low.

Heavy Metals, Cyanide, and Other Inorganic Chemicals
Well No. 1
The contaminant risk for heavy metals, cyanide and other inorganic chemicals is very high with sewer lines, roads, motor vehicle repair shops and the presence 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).

Recent sampling on February 14, 2000 detected arsenic at 0.0095 mg/l or (95% of the current 0.01 mg/l MCL).

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." (EPA, 2001).

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 50 ppb. (EPA, 2001).

Barium, cadmium and cyanide have also been detected in the source waters at very low levels. It is likely that these contaminants are naturally occurring. (See Chart 9 – Contaminant Risks for Heavy Metals, Cyanide, and Other Inorganic Chemicals in Appendix D)

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

Well No.2
The contaminant risk for heavy metals, cyanide and other inorganic chemicals is very high with the landfill 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).

Due to mixing of the two sources, the sampling history is identical to the results reported under Well No. 1.

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
Well No.1
The contaminant risk for synthetic organic chemicals is low with sewer lines representing the most significant risk. (See Chart 11 – Contaminant Risks for Synthetic Organic Chemicals in Appendix D, respectively).

The system has a current Waiver and no sampling of synthetic organic chemicals has recently occurred.

Combining the contaminant risk with the natural susceptibility of the wells, the overall vulnerability to synthetic organic chemicals is low.

Well No.2
The contaminant risk for synthetic organic chemicals is low with sewer lines representing the most significant risk. (See Chart 11 – Contaminant Risks for Synthetic Organic Chemicals in Appendix D, respectively).

The system has a current Waiver and no sampling of synthetic organic chemicals has recently occurred.

Combining the contaminant risk with the natural susceptibility of the wells, the overall vulnerability to synthetic organic chemicals is low.

Other Organic Chemicals
Well No. 1
The contaminant risk for other organic chemicals is medium with sewer lines, roads, heavy equipment storage and motor vehicle repair shops presenting the most significant risk.
The system has a current Waiver and no sampling of other organic chemicals has recently occurred.

After combining the contaminant risk with the natural susceptibility of the wells, the overall vulnerability to other organic chemicals is low. (See Chart 13 – Contaminant Risks for Other Organic Chemicals in Appendix D, respectively).

Well No.3
The contaminant risk for other organic chemicals is medium with the landfill presenting the most significant risk.

The system has a current Waiver and no sampling of other organic chemicals has recently occurred.

After combining the contaminant risk with the natural susceptibility of the well, the overall vulnerability to other organic chemicals is low. (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 East Anchorage Mobile Home Court. The overall vulnerability of Well No.1 to contamination is **Low** for bacteria and viruses, synthetic organic chemicals and other organic chemicals, **Medium** for nitrates and/or nitrites and volatile organic chemicals and **High** for heavy metals, cyanide, other organic chemicals. The overall vulnerability of Well No. 2 to contamination of **Low** for bacteria and viruses, nitrates and/or nitrites, volatile organic chemicals, synthetic organic chemicals and other organic chemicals and **High** for heavy metals. 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 East Anchorage Mobile Home 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 East Anchorage Mobile Home Court 's public drinking water source.

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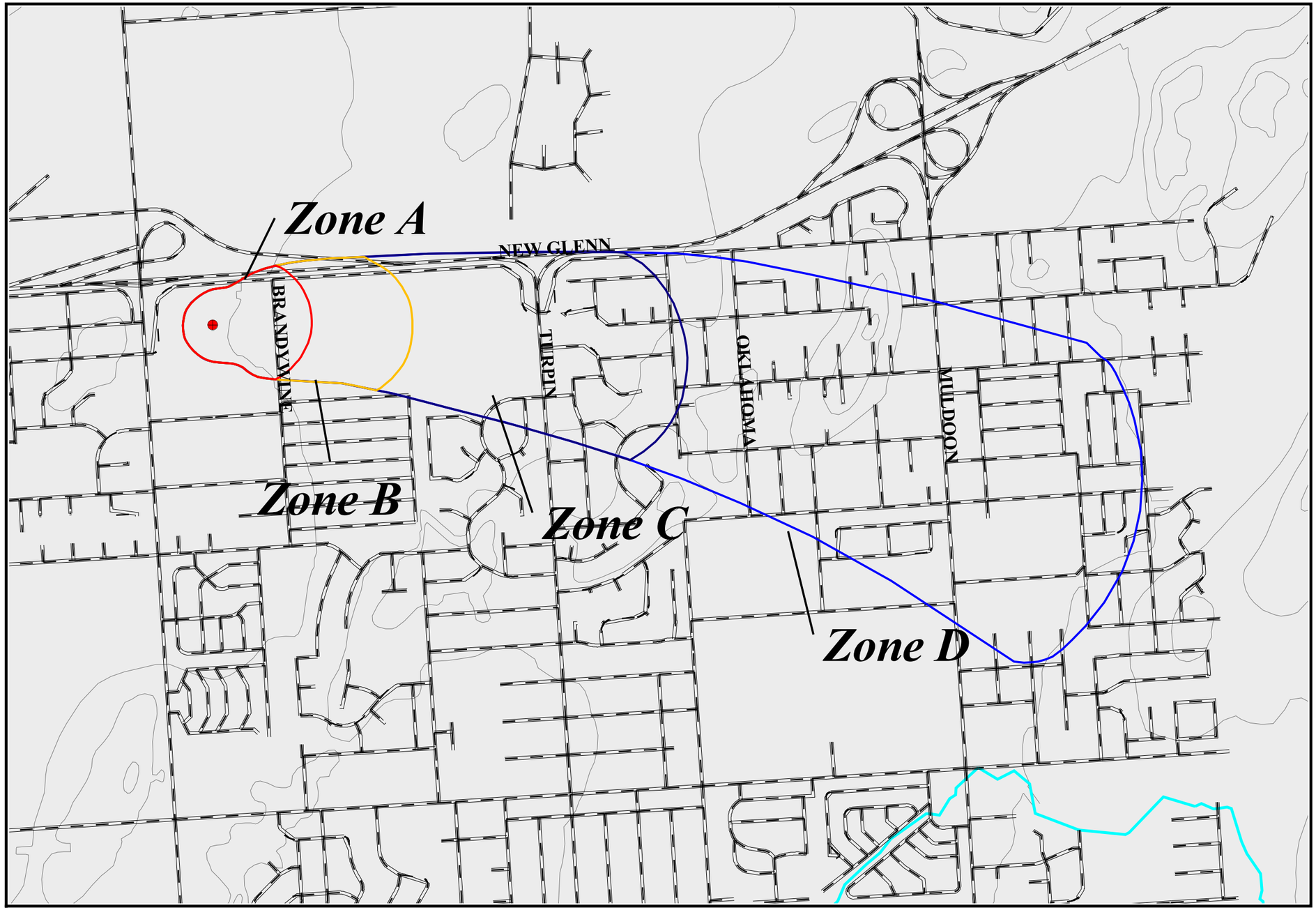
United States Environmental Protection Agency, 2002. Retrieved February 2002, Drinking Water Contaminants. Office of Ground Water and Drinking Water [WWW document]. URL http://www.epa.gov/safewater/ars/ars_rule_factsheet.html

APPENDIX A

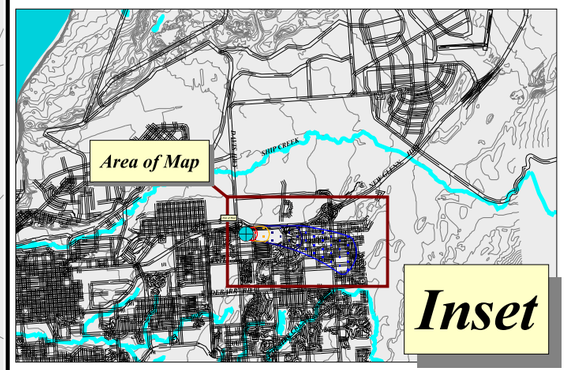
East Anchorage Mobile Home Court
Drinking Water Protection Areas Location Map
(Map 1 and Map 5)

Drinking Water Protection Area for East Anchorage Mobile Home Park-Well No. 1



Legend

- 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
- Rivers and Streams
- Lakes
- Cook Inlet
- Elevation Contours



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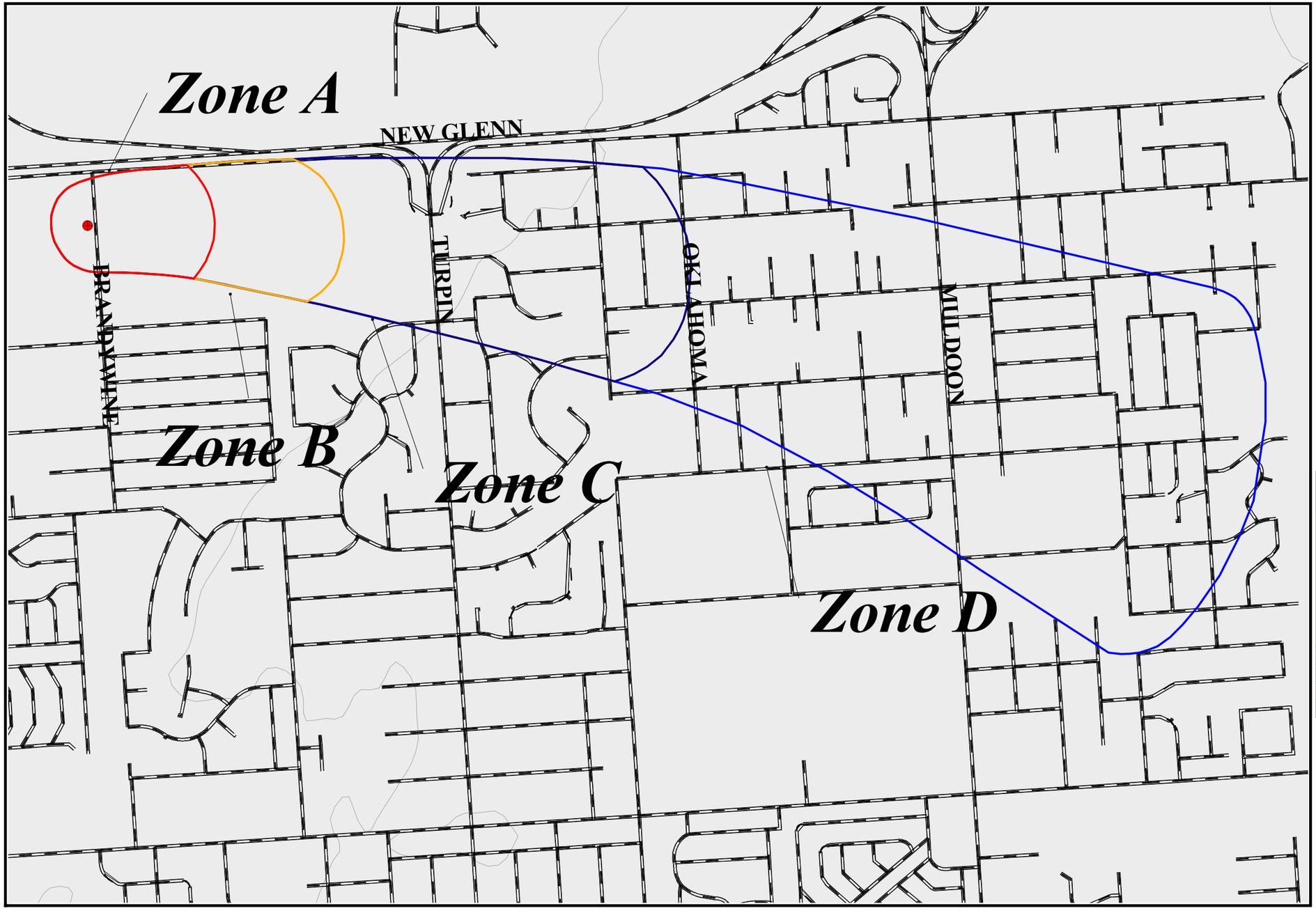
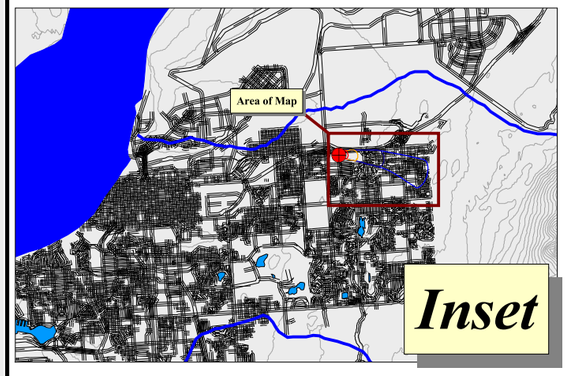
Map 1

Drinking Water Protection Area for East Anchorage Mobile Home Court-Well No.2



Legend

- 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 Protection Area
- Less than 5 Years Travel Time
- Roads
- Railroads (X30)
- Lakes
- Cook inlet water.shp
- Streams
- Roads
- Elevation Contours



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Map 5

APPENDIX B

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Court

Well No. 1

(Tables 1-7)

and

Well No. 2

(Tables 1-7)

Table 1

Contaminant Source Inventory for ***East Anchorage Mobile Home Park***

PWSID 211025.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
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	
Highways and roads, paved (cement or asphalt)	X20	X20-1	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	
Construction trade areas and materials	C09	C9-1	C	3	
Heavy equipment rental/storage	C18	C18-1	C	3	
Motor /motor vehicle repair shops	C31	C31-1	C	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5-24	C	3	Zone C has 17 sewer lines
Residential Areas	R01	R1-1	C	3	
Highways and roads, paved (cement or asphalt)	X20	X20-4-21	C	3	Zone C has 16 roads
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	3	
Dog walking areas/foot trails	X46	X46-1	C	3	
Dog walking areas/foot trails	X46	X46-2	C	3	
Gasoline stations (without repair shop)	C15	C15-1	D	4	
Gasoline stations (without repair shop)	C15	C15-2	D	4	
Gasoline stations (with repair shop)	C16	C16-1	D	4	
Gasoline stations (with repair shop)	C16	C16-2	D	4	
Tanks, diesel (underground)	T08	T8-1	D	4	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Tanks, diesel (underground)	T08	T8-2	D	4	
Tanks, diesel (underground)	T08	T8-3	D	4	
Tanks, diesel (underground)	T08	T8-4	D	4	
Tanks, diesel (underground)	T08	T8-5	D	4	
Tanks, diesel (underground)	T08	T8-6	D	4	
Tanks, gasoline (underground)	T12	T12-1	D	4	
Tanks, gasoline (underground)	T12	T12-10	D	4	
Tanks, gasoline (underground)	T12	T12-11	D	4	
Tanks, gasoline (underground)	T12	T12-12	D	4	
Tanks, gasoline (underground)	T12	T12-2	D	4	
Tanks, gasoline (underground)	T12	T12-3	D	4	
Tanks, gasoline (underground)	T12	T12-4	D	4	
Tanks, gasoline (underground)	T12	T12-5	D	4	
Tanks, gasoline (underground)	T12	T12-6	D	4	
Tanks, gasoline (underground)	T12	T12-7	D	4	
Tanks, gasoline (underground)	T12	T12-8	D	4	
Tanks, gasoline (underground)	T12	T12-9	D	4	
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-1	D	4	Open LUST site File No. - L10.06 Petroleum hydrocarbo soil and groundwater contamination documented in 8/89. Source(s) have not been completely identified. Quantity and date of spill is unknown. Priority: High
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-2	D	4	Release associated with two diesel tanks. Owner is out of state and non-responsive. Extent of contamination is unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-3	D	4	Open Lust site. File No. L55.224 Petroleum contamination discovered during oil tank removals. Extent of contamination unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-4	D	4	Active LUST Site. File No. L25.01Soil/groundwater documented contamination documented during 1989 UST removal. Extent of contamination is unknown. Priority: Medium

Table 2

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Bacteria and Viruses

PWSID 211025.001

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	
Highways and roads, paved (cement or asphalt)	X20	X20-1	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	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5-24	C	Medium	3	Zone C has 17 sewer lines
Highways and roads, paved (cement or asphalt)	X20	X20-4-21	C	Low	3	Zone C has 16 roads

Table 3

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Nitrates/Nitrites

PWSID 211025.001

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	
Highways and roads, paved (cement or asphalt)	X20	X20-1	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	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5-24	C	Medium	3	Zone C has 17 sewer lines
Residential Areas	R01	R1-1	C	Low	3	
Highways and roads, paved (cement or asphalt)	X20	X20-4-21	C	Low	3	Zone C has 16 roads
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	3	
Dog walking areas/foot trails	X46	X46-1	C	Low	3	
Dog walking areas/foot trails	X46	X46-2	C	Low	3	

Table 4

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Volatile Organic Chemicals

PWSID 211025.001

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	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	
Highways and roads, paved (cement or asphalt)	X20	X20-1	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	
Heavy equipment rental/storage	C18	C18-1	C	Medium	3	
Motor /motor vehicle repair shops	C31	C31-1	C	Medium	3	
Construction trade areas and materials	C09	C9-1	C	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5-24	C	Low	3	Zone C has 17 sewer lines
Residential Areas	R01	R1-1	C	Low	3	
Highways and roads, paved (cement or asphalt)	X20	X20-4-21	C	Low	3	Zone C has 16 roads
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	3	
Gasoline stations (without repair shop)	C15	C15-1	D	High	4	
Gasoline stations (without repair shop)	C15	C15-2	D	High	4	
Gasoline stations (with repair shop)	C16	C16-1	D	High	4	
Gasoline stations (with repair shop)	C16	C16-2	D	High	4	
Tanks, gasoline (underground)	T12	T12-1	D	High	4	
Tanks, gasoline (underground)	T12	T12-10	D	High	4	
Tanks, gasoline (underground)	T12	T12-11	D	High	4	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Tanks, gasoline (underground)	T12	T12-12	D	High	4	
Tanks, gasoline (underground)	T12	T12-2	D	High	4	
Tanks, gasoline (underground)	T12	T12-3	D	High	4	
Tanks, gasoline (underground)	T12	T12-4	D	High	4	
Tanks, gasoline (underground)	T12	T12-5	D	High	4	
Tanks, gasoline (underground)	T12	T12-6	D	High	4	
Tanks, gasoline (underground)	T12	T12-7	D	High	4	
Tanks, gasoline (underground)	T12	T12-8	D	High	4	
Tanks, gasoline (underground)	T12	T12-9	D	High	4	
Tanks, diesel (underground)	T08	T8-1	D	High	4	
Tanks, diesel (underground)	T08	T8-2	D	High	4	
Tanks, diesel (underground)	T08	T8-3	D	High	4	
Tanks, diesel (underground)	T08	T8-4	D	High	4	
Tanks, diesel (underground)	T08	T8-5	D	High	4	
Tanks, diesel (underground)	T08	T8-6	D	High	4	
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-1	D	High	4	Open LUST site File No. - L10.06 Petroleum hydrocarbo soil and groundwater contamination documented in 8/89. Source(s) have not been completely identified. Quantity and date of spill is unknown. Priority: High
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-2	D	High	4	Release associated with two diesel tanks. Owner is out of state and non-responsive. Extent of contamination is unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-3	D	High	4	Open Lust site. File No. L55.224 Petroleum contamination discovered during oil tank removals. Extent of contamination unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-4	D	High	4	Active LUST Site. File No. L25.01Soil/groundwater documented contamination documented during 1989 UST removal. Extent of contamination is unknown. Priority: Medium

Table 5

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park
Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals

PWSID 211025.001

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	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	
Highways and roads, paved (cement or asphalt)	X20	X20-1	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	
Heavy equipment rental/storage	C18	C18-1	C	Low	3	
Motor /motor vehicle repair shops	C31	C31-1	C	Medium	3	
Construction trade areas and materials	C09	C9-1	C	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5-24	C	Low	3	Zone C has 17 sewer lines
Residential Areas	R01	R1-1	C	Low	3	
Highways and roads, paved (cement or asphalt)	X20	X20-4-21	C	Low	3	Zone C has 16 roads
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	3	

Table 6

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Synthetic Organic Chemicals

PWSID 211025.001

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	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	D1-5-24	C	Low	3	Zone C has 17 sewer lines
Residential Areas	R01	R1-1	C	Low	3	
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	3	

Table 7

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Other Organic Chemicals

PWSID 211025.001

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	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	
Highways and roads, paved (cement or asphalt)	X20	X20-1	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	
Heavy equipment rental/storage	C18	C18-1	C	Medium	3	
Motor /motor vehicle repair shops	C31	C31-1	C	Medium	3	
Construction trade areas and materials	C09	C9-1	C	Low	3	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D1-5-24	C	Low	3	Zone C has 17 sewer lines
Residential Areas	R01	R1-1	C	Low	3	
Highways and roads, paved (cement or asphalt)	X20	X20-4-21	C	Low	3	Zone C has 16 roads

Table 1

Contaminant Source Inventory for ***East Anchorage Mobile Home Park***

PWSID 211025.002

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	6	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	6	
Construction trade areas and materials	C09	C9-1	C	7	
Heavy equipment rental/storage	C18	C18-1	C	7	
Motor /motor vehicle repair shops	C31	C31-1	C	7	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-17	C	7	17 sewerlines in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-03-20	C	7	16 roads in Zone C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	7	
Dog walking areas/foot trails	X46	X46-1	C	7	
Dog walking areas/foot trails	X46	X46-2	C	7	
Gasoline stations (without repair shop)	C15	C15-1	D	8	
Gasoline stations (without repair shop)	C15	C15-2	D	8	
Gasoline stations (without repair shop)	C15	C15-3	D	8	
Gasoline stations (with repair shop)	C16	C16-1	D	8	
Gasoline stations (with repair shop)	C16	C16-2	D	8	
Tanks, diesel (underground)	T08	T8-1	D	8	
Tanks, diesel (underground)	T08	T8-2	D	8	
Tanks, diesel (underground)	T08	T8-3	D	8	
Tanks, diesel (underground)	T08	T8-4	D	8	
Tanks, diesel (underground)	T08	T8-5	D	8	
Tanks, diesel (underground)	T08	T8-6	D	8	
Tanks, gasoline (underground)	T12	T12-1	D	8	
Tanks, gasoline (underground)	T12	T12-10	D	8	

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Tanks, gasoline (underground)	T12	T12-11	D	8	
Tanks, gasoline (underground)	T12	T12-12	D	8	
Tanks, gasoline (underground)	T12	T12-2	D	8	
Tanks, gasoline (underground)	T12	T12-3	D	8	
Tanks, gasoline (underground)	T12	T12-4	D	8	
Tanks, gasoline (underground)	T12	T12-5	D	8	
Tanks, gasoline (underground)	T12	T12-6	D	8	
Tanks, gasoline (underground)	T12	T12-7	D	8	
Tanks, gasoline (underground)	T12	T12-8	D	8	
Tanks, gasoline (underground)	T12	T12-9	D	8	
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-1	D	8	Open LUST site File No. - L10.06 Petroleum hydrocarbo soil and groundwater contamination documented in 8/89. Source(s) have not been completely identified. Quantity and date of spill is unknown. Priority: High
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-2	D	8	Release associated with two diesel tanks. Owner is out of state and non-responsive. Extent of contamination is unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-3	D	8	Open Lust site. File No. L55.224 Petroleum contamination discovered during oil tank removals. Extent of contamination unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-4	D	8	Active LUST Site. File No. L25.01Soil/groundwater documented contamination documented during 1989 UST removal. Extent of contamination is unknown. Priority: Medium

Table 2

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Bacteria and Viruses

PWSID 211025.002

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	X20-1	A	Low	6	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	6	

Table 3

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Nitrates/Nitrites

PWSID 211025.002

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	X20-1	A	Low	6	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	6	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-17	C	Medium	7	17 sewerlines in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-03-20	C	Low	7	16 roads in Zone C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	7	
Dog walking areas/foot trails	X46	X46-1	C	Low	7	
Dog walking areas/foot trails	X46	X46-2	C	Low	7	

Table 4

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Volatile Organic Chemicals

PWSID 211025.002

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	X20-1	A	Low	6	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	6	
Heavy equipment rental/storage	C18	C18-1	C	Medium	7	
Motor /motor vehicle repair shops	C31	C31-1	C	Medium	7	
Construction trade areas and materials	C09	C9-1	C	Low	7	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-17	C	Low	7	17 sewerlines in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-03-20	C	Low	7	16 roads in Zone C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	7	
Gasoline stations (without repair shop)	C15	C15-1	D	High	8	
Gasoline stations (without repair shop)	C15	C15-2	D	High	8	
Gasoline stations (without repair shop)	C15	C15-3	D	High	8	
Gasoline stations (with repair shop)	C16	C16-1	D	High	8	
Gasoline stations (with repair shop)	C16	C16-2	D	High	8	
Tanks, gasoline (underground)	T12	T12-1	D	High	8	
Tanks, gasoline (underground)	T12	T12-10	D	High	8	
Tanks, gasoline (underground)	T12	T12-11	D	High	8	
Tanks, gasoline (underground)	T12	T12-12	D	High	8	
Tanks, gasoline (underground)	T12	T12-2	D	High	8	
Tanks, gasoline (underground)	T12	T12-3	D	High	8	
Tanks, gasoline (underground)	T12	T12-4	D	High	8	
Tanks, gasoline (underground)	T12	T12-5	D	High	8	
Tanks, gasoline (underground)	T12	T12-6	D	High	8	
Tanks, gasoline (underground)	T12	T12-7	D	High	8	

Table 4 (continued)

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Volatile Organic Chemicals

PWSID 211025.002

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Tanks, gasoline (underground)	T12	T12-8	D	High	8	
Tanks, gasoline (underground)	T12	T12-9	D	High	8	
Tanks, diesel (underground)	T08	T8-1	D	High	8	
Tanks, diesel (underground)	T08	T8-2	D	High	8	
Tanks, diesel (underground)	T08	T8-3	D	High	8	
Tanks, diesel (underground)	T08	T8-4	D	High	8	
Tanks, diesel (underground)	T08	T8-5	D	High	8	
Tanks, diesel (underground)	T08	T8-6	D	High	8	
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-1	D	High	8	Open LUST site File No. - L10.06 Petroleum hydrocarbo soil and groundwater contamination documented in 8/89. Source(s) have not been completely identified. Quantity and date of spill is unknown. Priority: High
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-2	D	High	8	Release associated with two diesel tanks. Owner is out of state and non-responsive. Extent of contamination is unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-3	D	High	8	Open Lust site. File No. L55.224 Petroleum contamination discovered during oil tank removals. Extent of contamination unknown. Priority: Medium
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U7-4	D	High	8	Active LUST Site. File No. L25.01Soil/groundwater documented contamination documented during 1989 UST removal. Extent of contamination is unknown. Priority: Medium

Table 5

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals

PWSID 211025.002

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	X20-1	A	Low	6	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	6	
Heavy equipment rental/storage	C18	C18-1	C	Low	7	
Motor /motor vehicle repair shops	C31	C31-1	C	Medium	7	
Construction trade areas and materials	C09	C9-1	C	Low	7	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-17	C	Low	7	17 sewerlines in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-03-20	C	Low	7	16 roads in Zone C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	7	

Table 6

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Synthetic Organic Chemicals

PWSID 211025.002

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-17	C	Low	7	17 sewerlines in Zone C
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	C	Low	7	

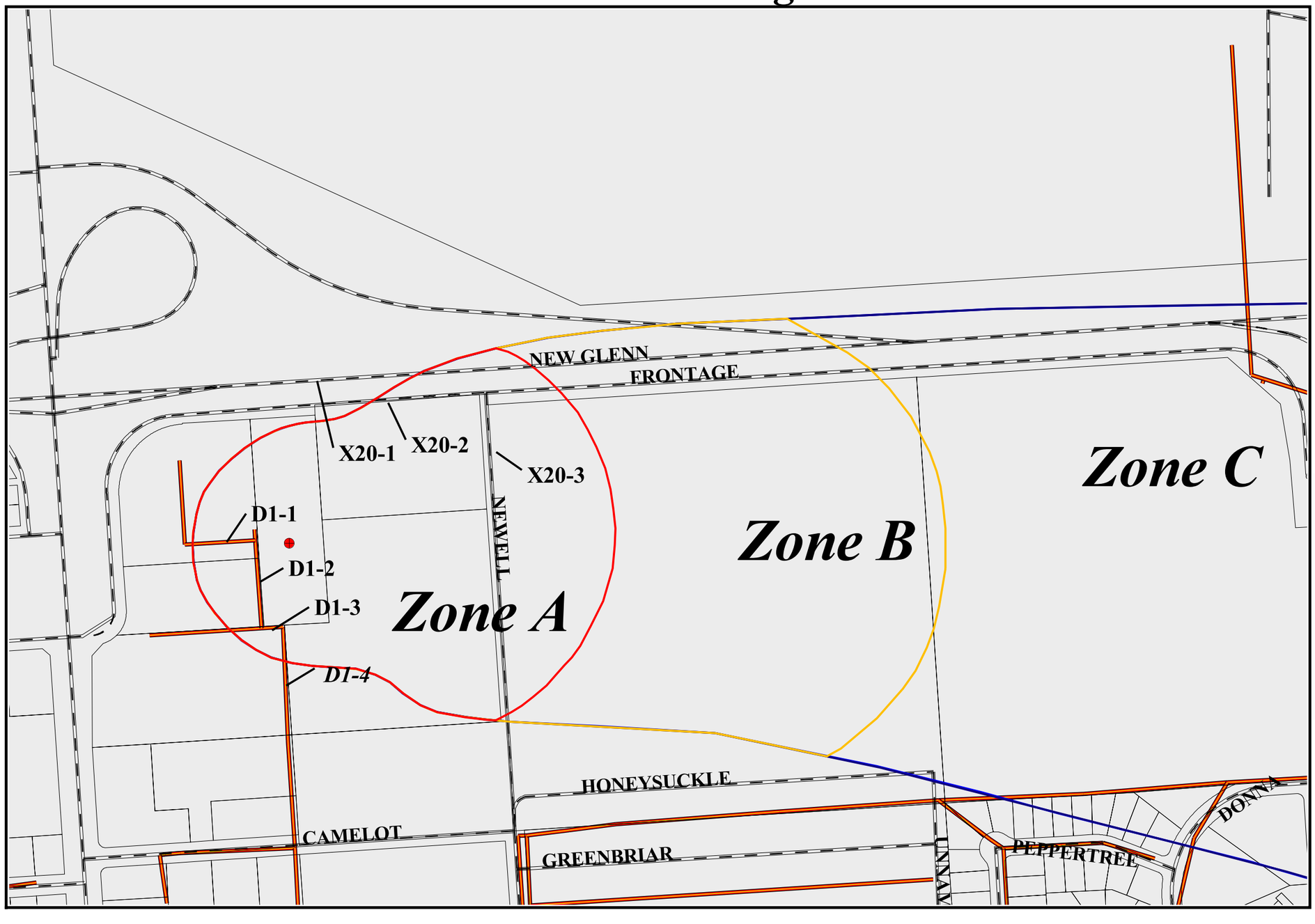
Table 7

Contaminant Source Inventory and Risk Ranking for East Anchorage Mobile Home Park Sources of Other Organic Chemicals

PWSID 211025.002

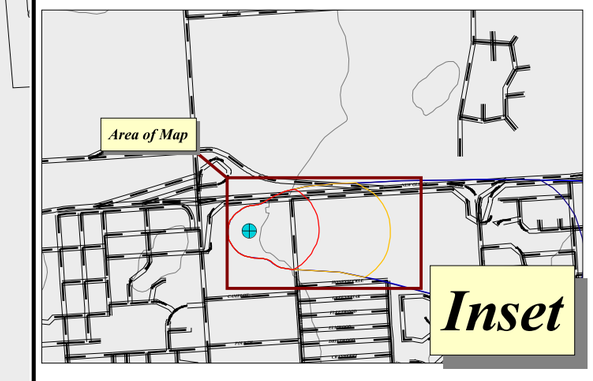
Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Highways and roads, paved (cement or asphalt)	X20	X20-1	A	Low	6	
Highways and roads, paved (cement or asphalt)	X20	X20-2	A	Low	6	
Heavy equipment rental/storage	C18	C18-1	C	Medium	7	
Motor /motor vehicle repair shops	C31	C31-1	C	Medium	7	
Construction trade areas and materials	C09	C9-1	C	Low	7	
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01-1-17	C	Low	7	17 sewerlines in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-03-20	C	Low	7	16 roads in Zone C

Drinking Water Protection Area for East Anchorage Mobile Home Park-Well No.1 and Potential and Existing Sources of Contamination



Legend

- 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
- MOA Land Parcels
- Sewers (D1)
- Cook Inlet
- Rivers and Streams
- Lakes



N
W E
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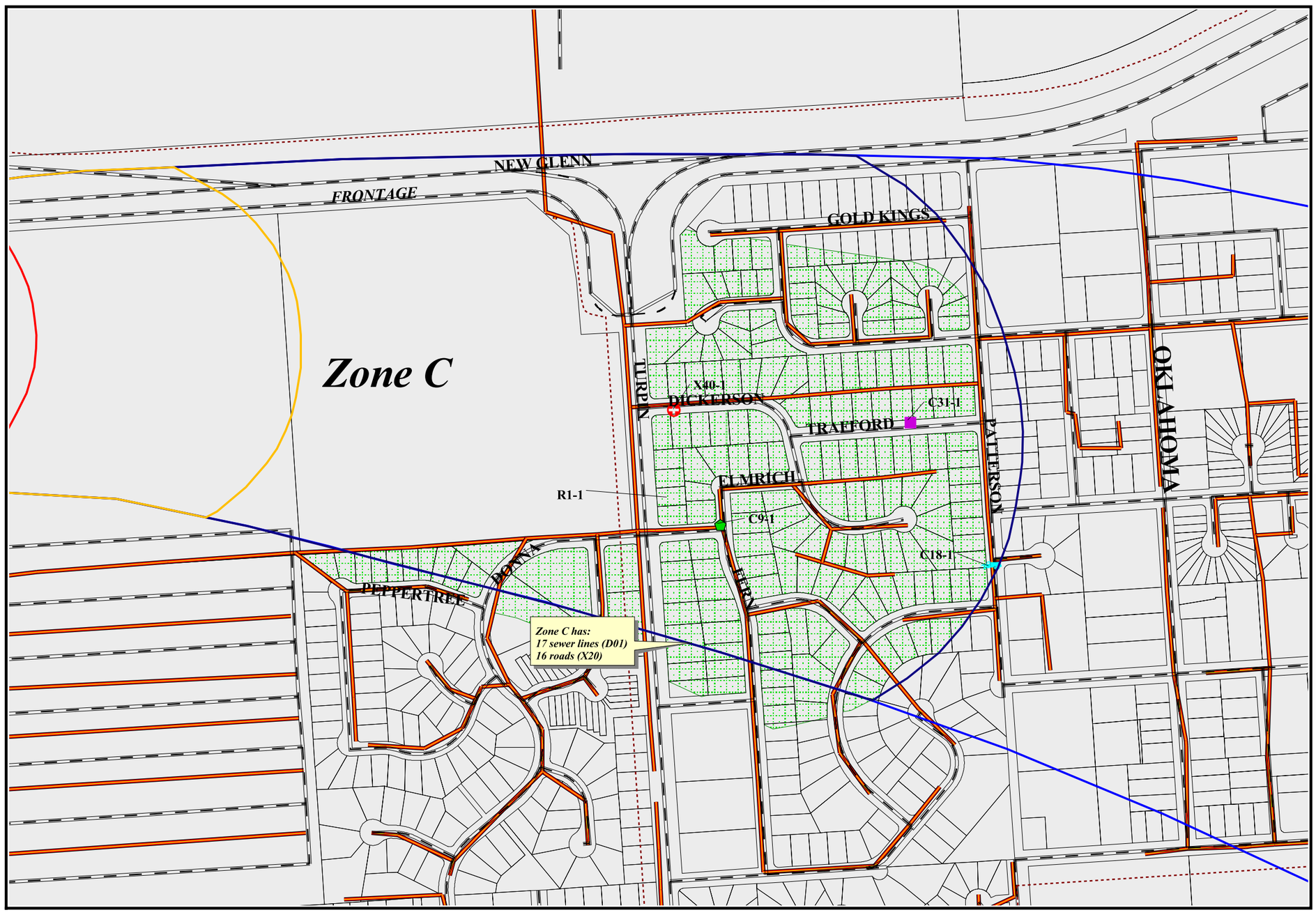
900 0 900 Feet

PWSID 211025.001

Map 2

Drinking Water Protection Area for East Anchorage Mobile Home Park-Well No.1 and Potential and Existing Sources of Contamination



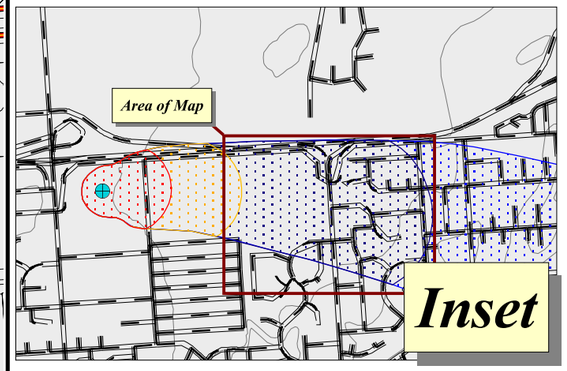
Legend

- 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
- Trails (X46)

Contaminant Sources

- Aircraft maintenance shop (C1)
- Heavy equipment rental/storage (C18)
- Appliance repair shop (C3)
- Construction trade areas (C9)
- Medical/veterinary facilities (X40)

- Roads
- Sewers (R2)
- MOA Land Parcels
- Residential lawns (R1)



N
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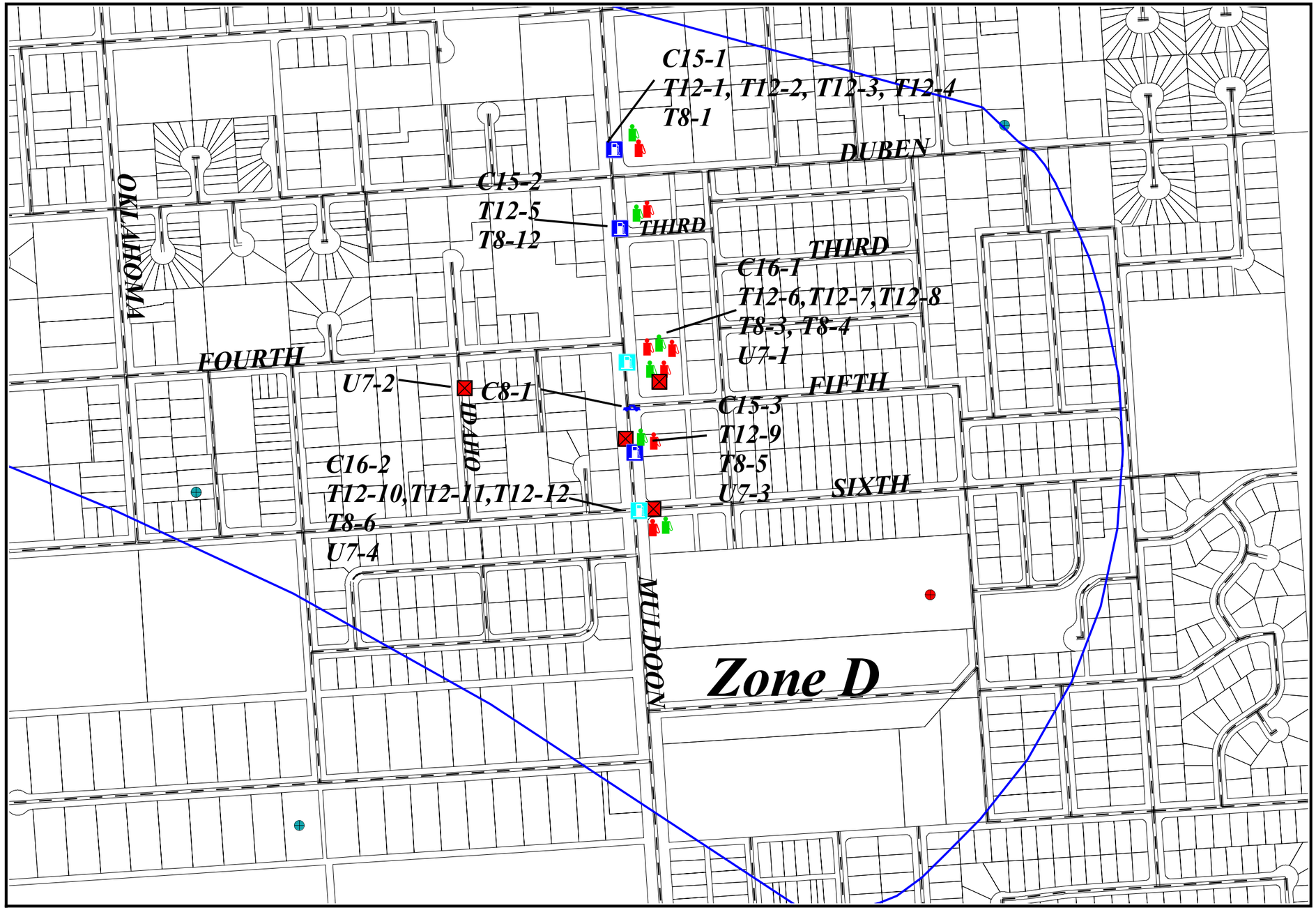
PWSID 211025.001

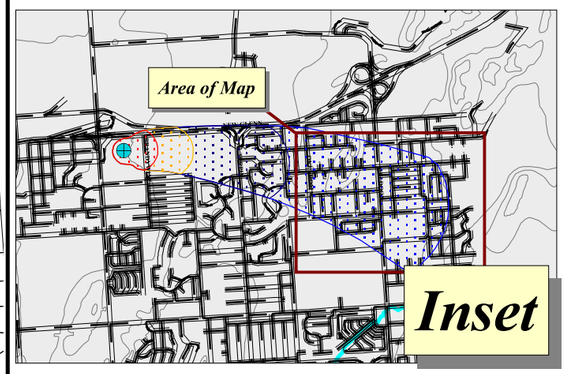
Map 3

Drinking Water Protection Area for East Anchorage Mobile Home Park -Well No.1 and 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)
  - Gasoline stations (with repair shop) (C16)
  - Car washes with undercarriage cleaning (C8)
  - Tanks, gasoline (underground) (T12)
  - Tanks, diesel, (underground) (T8)
  - Open Leaking Underground Fuel Storage Tank (LUST) Sites
  - Private Wells
  - USGS Wells
  - Roads
  - MOA Land Parcels



N
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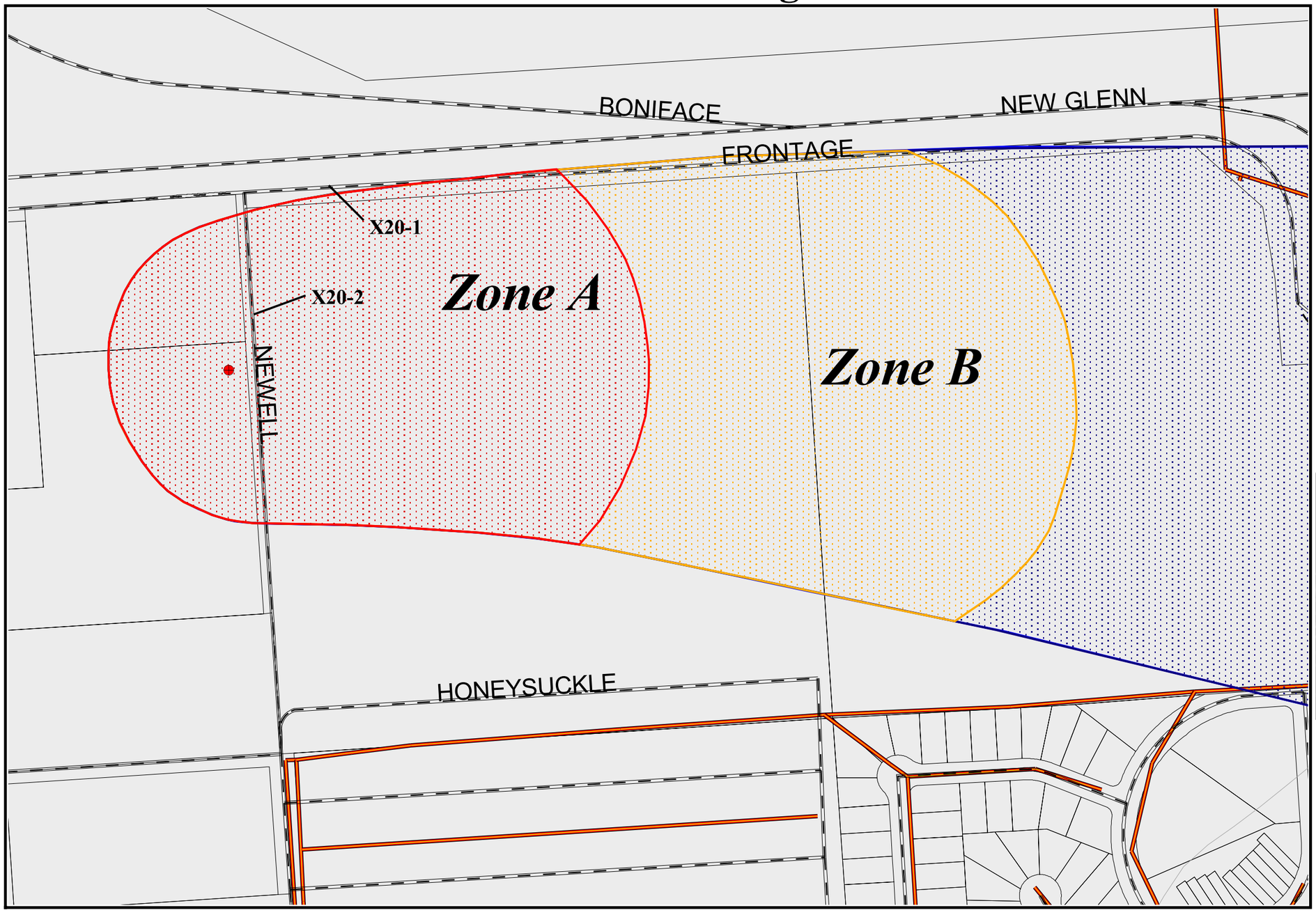
700 0 700 Feet

PWSID 211025.001

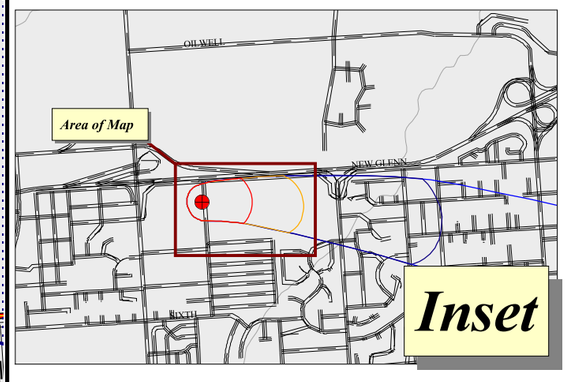
Map 4

Drinking Water Protection Area for East Anchorage Mobile Home Court-Well No.2 and Potential and Existing Sources of Contamination



Legend

- 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 Protection Area
  - Less than 5 Years Travel Time
- Lakes
- Cook inlet water.shp
- Streams
- Railroads (X30)
- Elevation Contours
- Roads
- Sewers (D1)
- MOA Land Parcels



N
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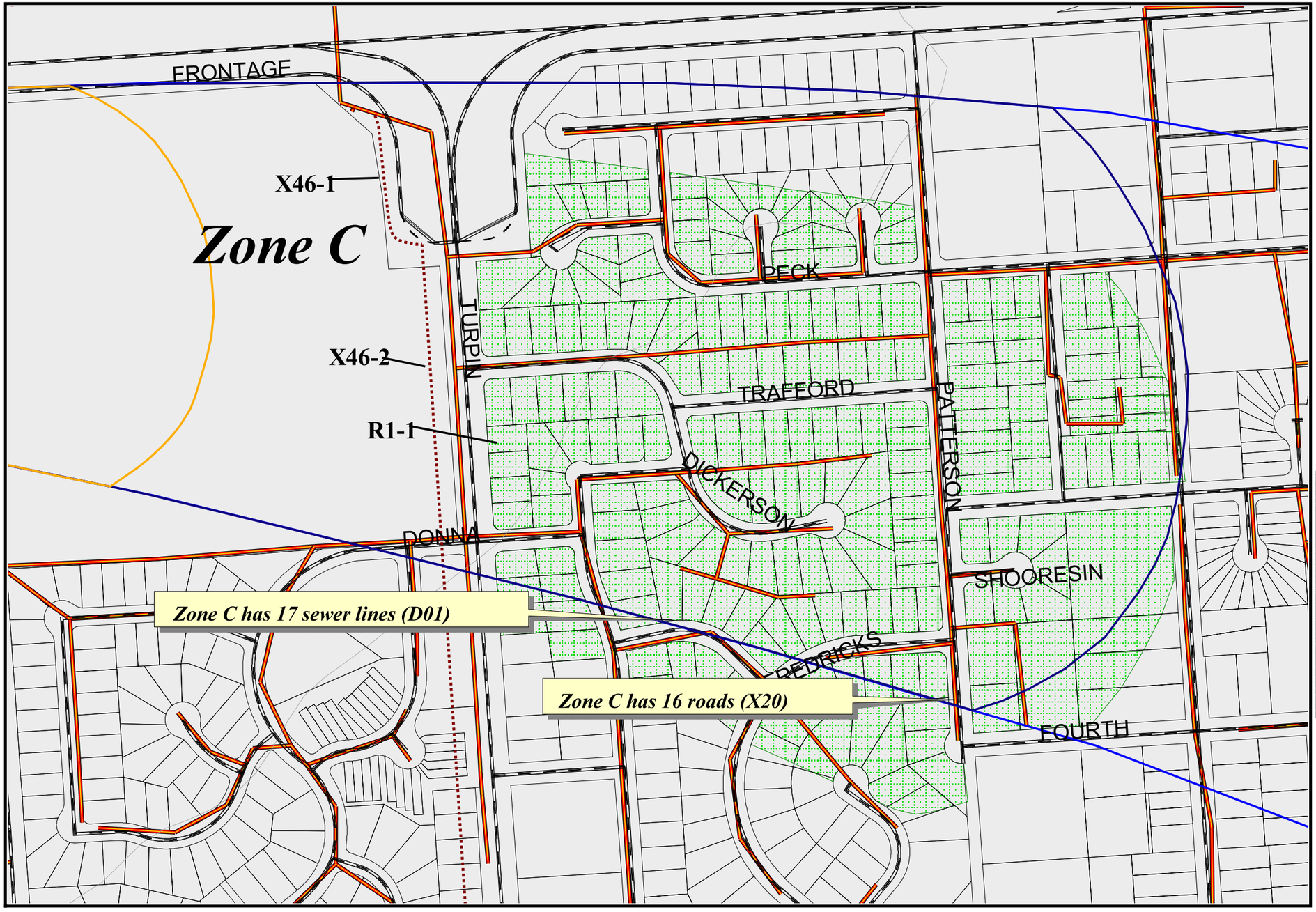
800 0 800 Feet

PWSID 211025.002

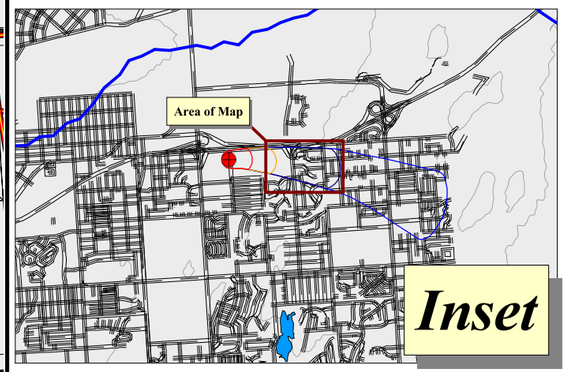
Map 6

Drinking Water Protection Area for East Anchorage Mobile Home Court-Well No.2 and Potential and Existing Sources of Contamination



Legend

- 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 Protection Area
  - Less than 5 Years Travel Time
- Trails (X46)
- Roads
- Streams
- Lakes
- Cook inlet water.shp
- Roads
- Railroads (X30)
- Elevation Contours
- Sewers (R2)
- MOA Land Parcels
- Residential lawns (R1)



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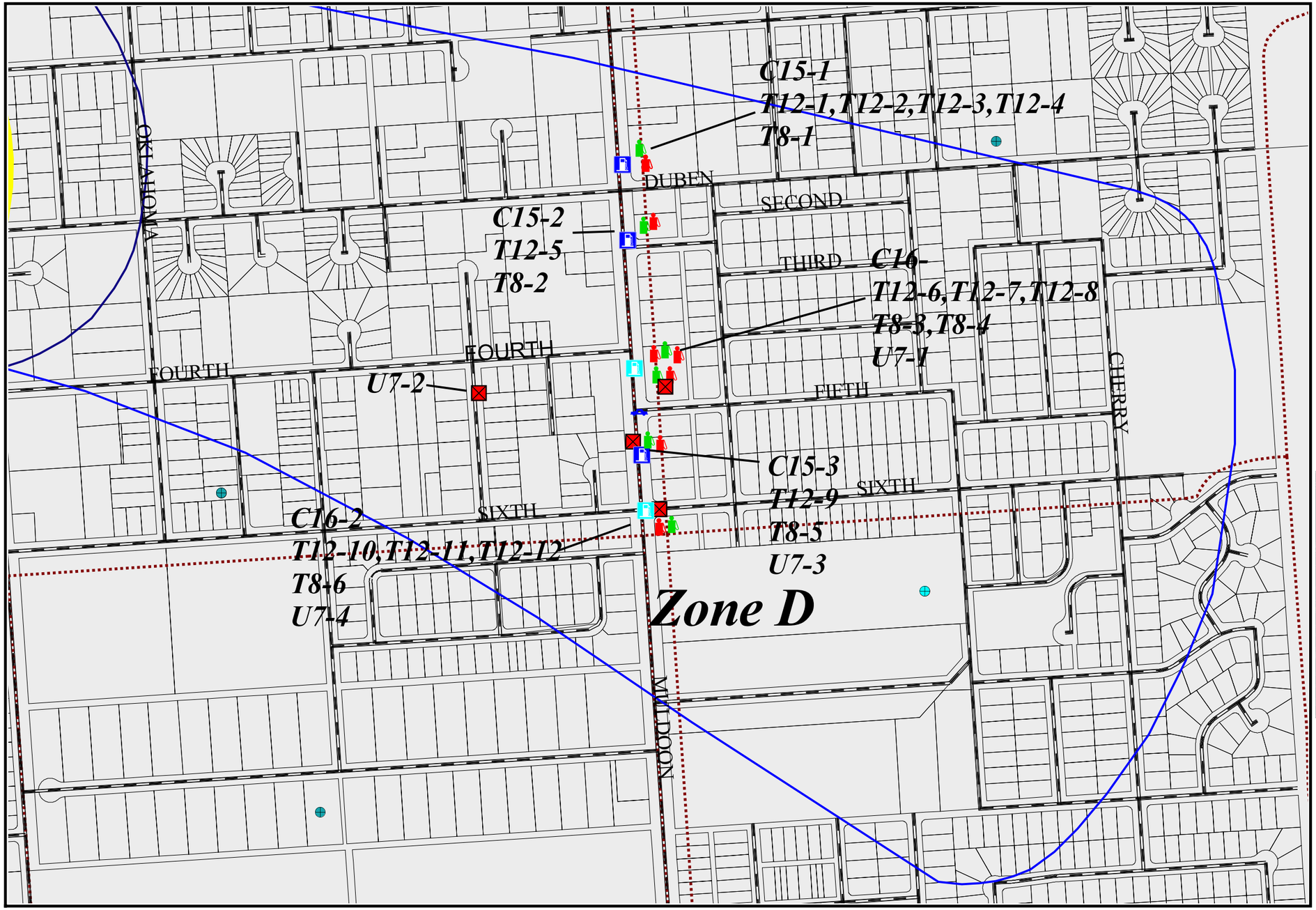
0 0.3 Miles

PWSID 211025.002

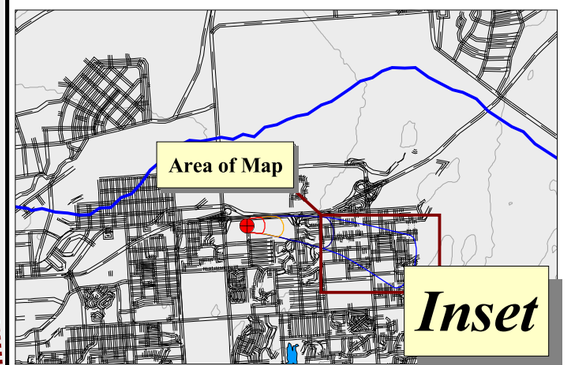
Map 7

Drinking Water Protection Area for East Anchorage Mobile Home Court-Well No.2 and 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 Protection Area
Less than 5 Years Travel Time
Elevation Contours
Zoned_contam.shp
Gasoline stations (without repair shop) (C15)
Gasoline stations (with repair shop) (C16)
Car washes with undercarriage cleaning (C8)
Tanks, gasoline (underground) (T12)
Tanks, diesel, (underground) (T8)
Open Leaking Underground Fuel Storage Tank (LUST) Sites (U7)
Private Wells
USGS Wells
Roads
Trails (X46)
MOA Land Parcels
Roads
Lakes
Cook inlet water.shp
Streams



N
W E
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900 0 900 Feet

PWSID 211025.002

Map 8

APPENDIX D

Vulnerability Analysis for
East Anchorage Mobile Home Court

Well No. 1
(Charts 1-14)
Well No. 2
(Charts 1-14)

Chart 1. Susceptibility of the wellhead - East Anchorage Mobile Home Park-Well No. 1

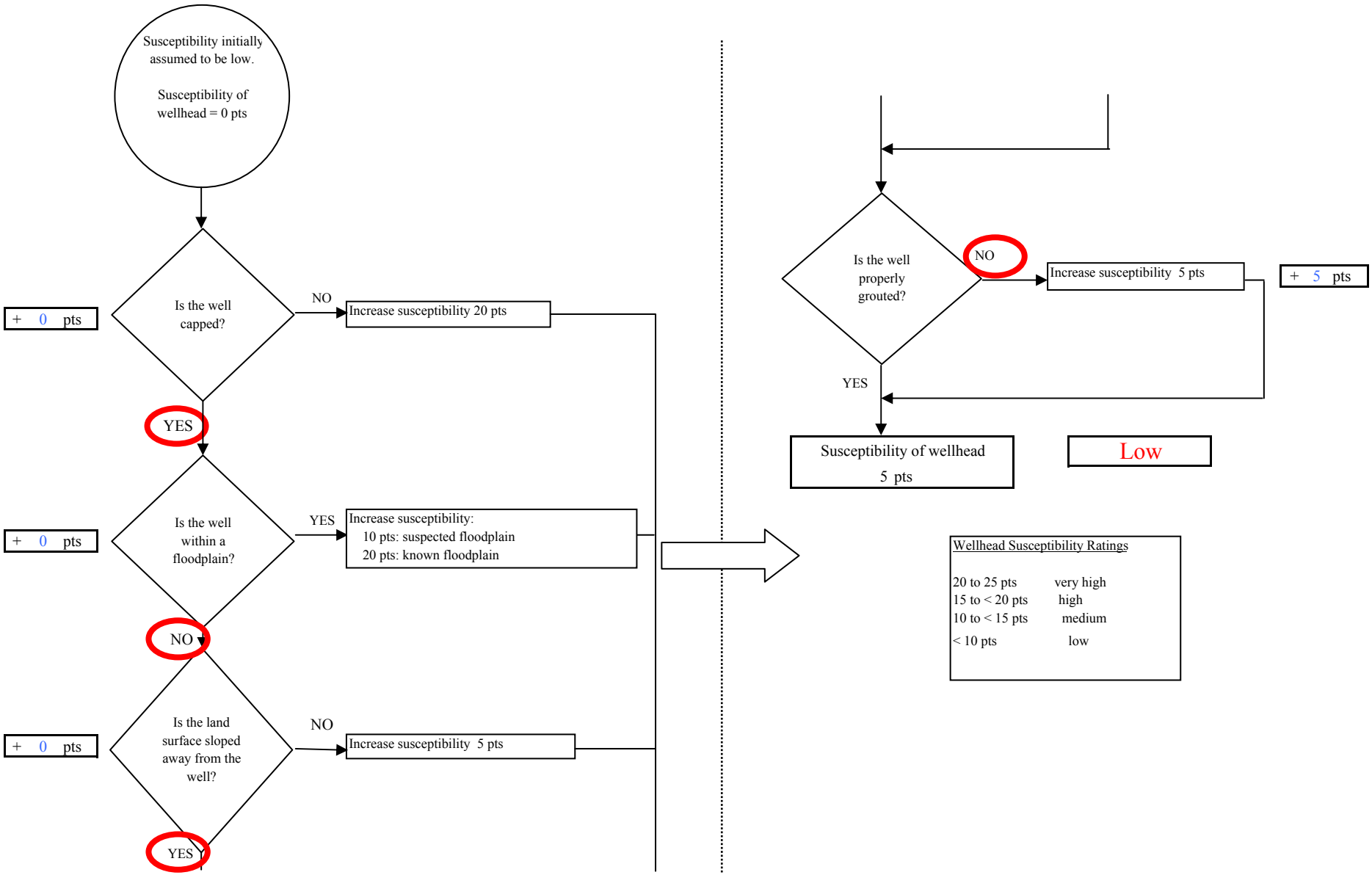


Chart 2. Susceptibility of the aquifer - East Anchorage Mobile Home Park-Well No. 1

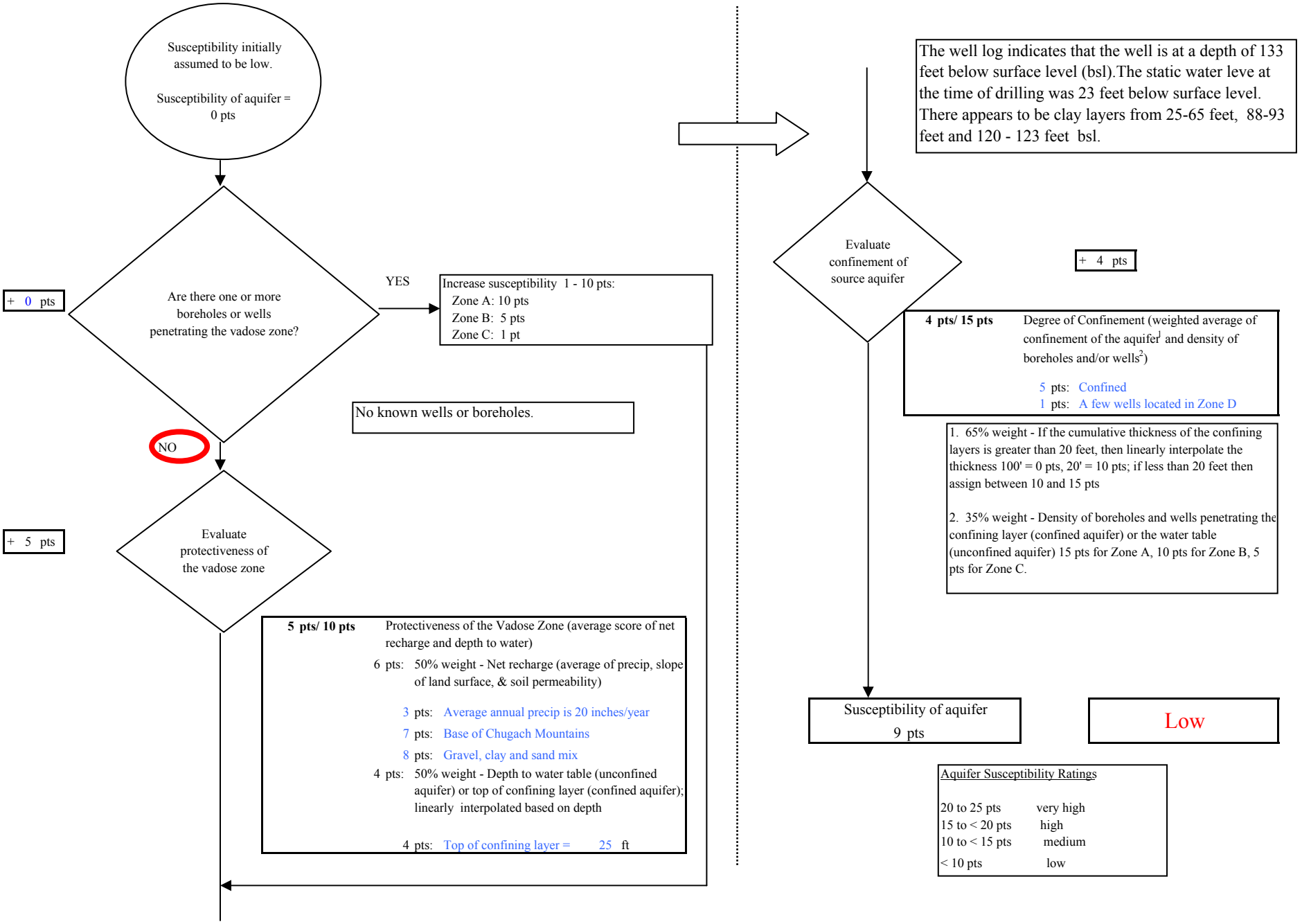
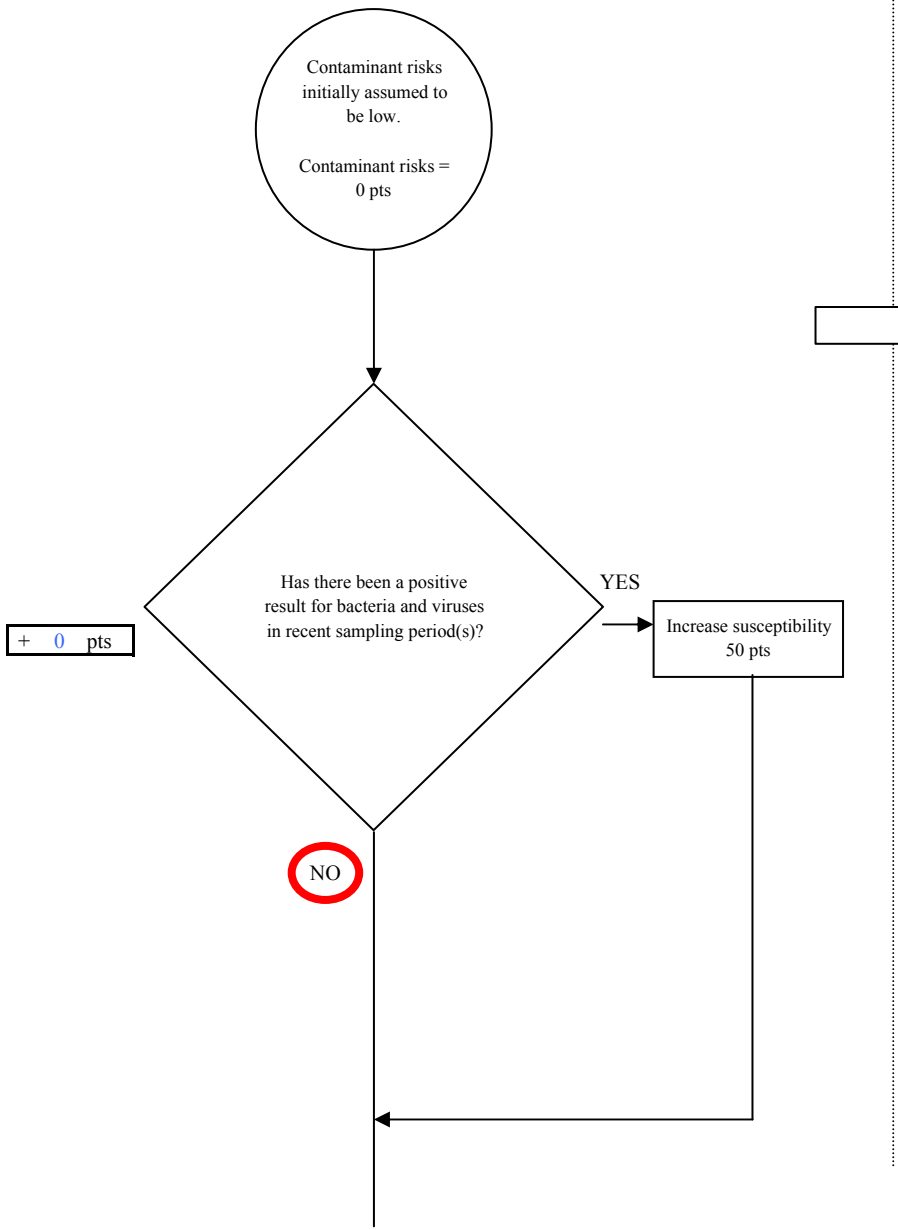
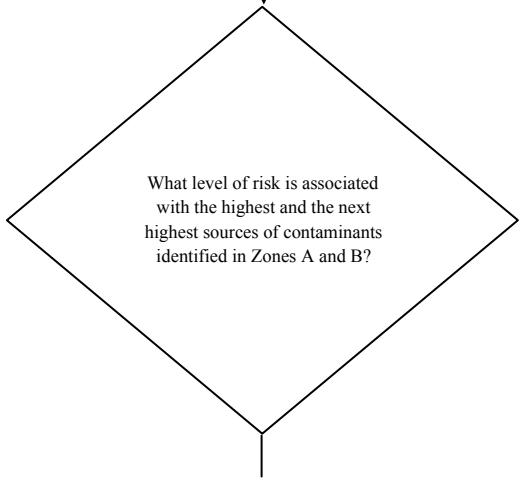


Chart 3. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Bacteria & Viruses





+ 20 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)	1	0	1
Low(s)	1	0	1

	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 3. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Bacteria & Viruses

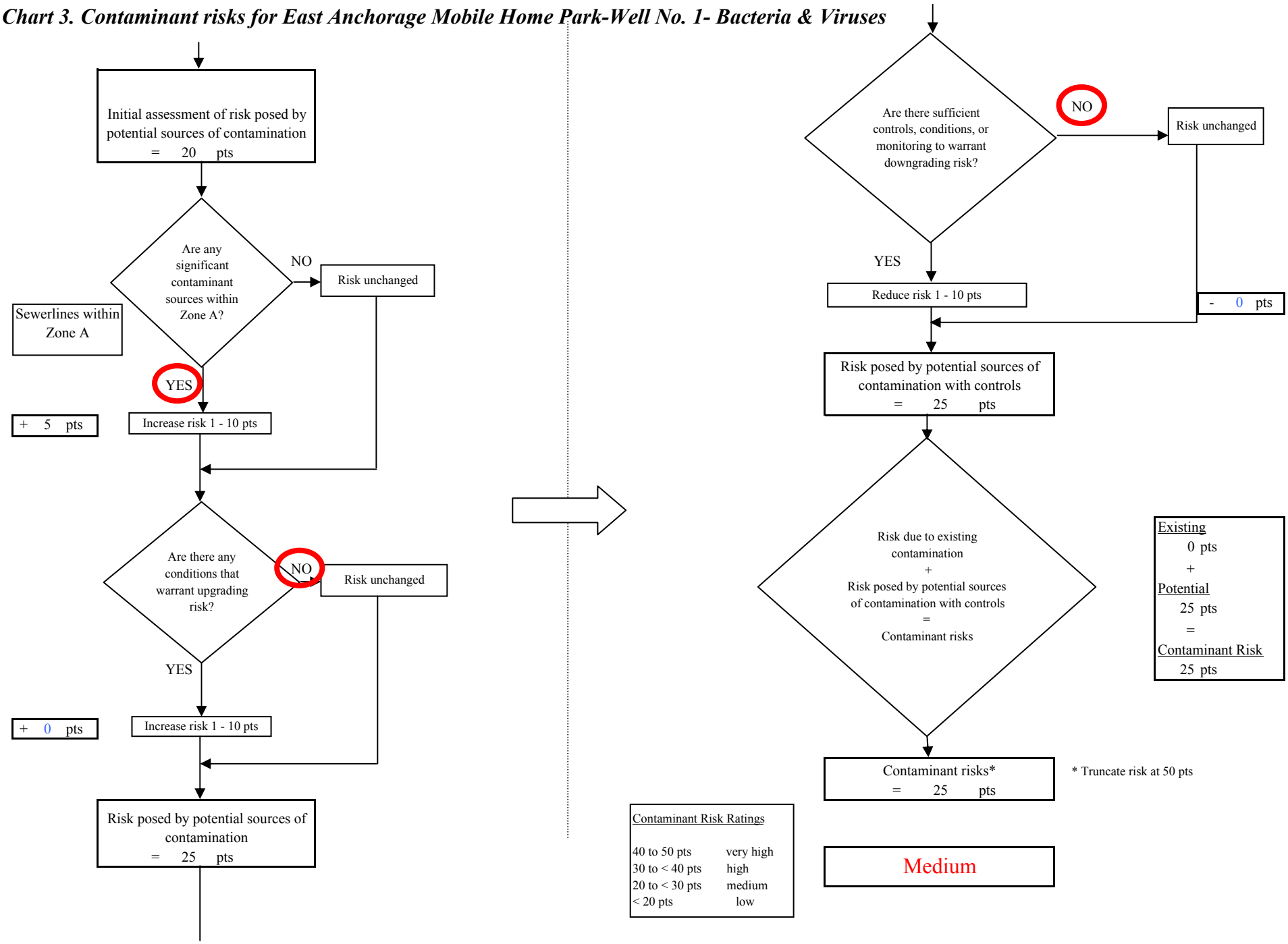


Chart 4. Vulnerability analysis for East Anchorage Mobile Home Park-Well No. 1- Bacteria & Viruses

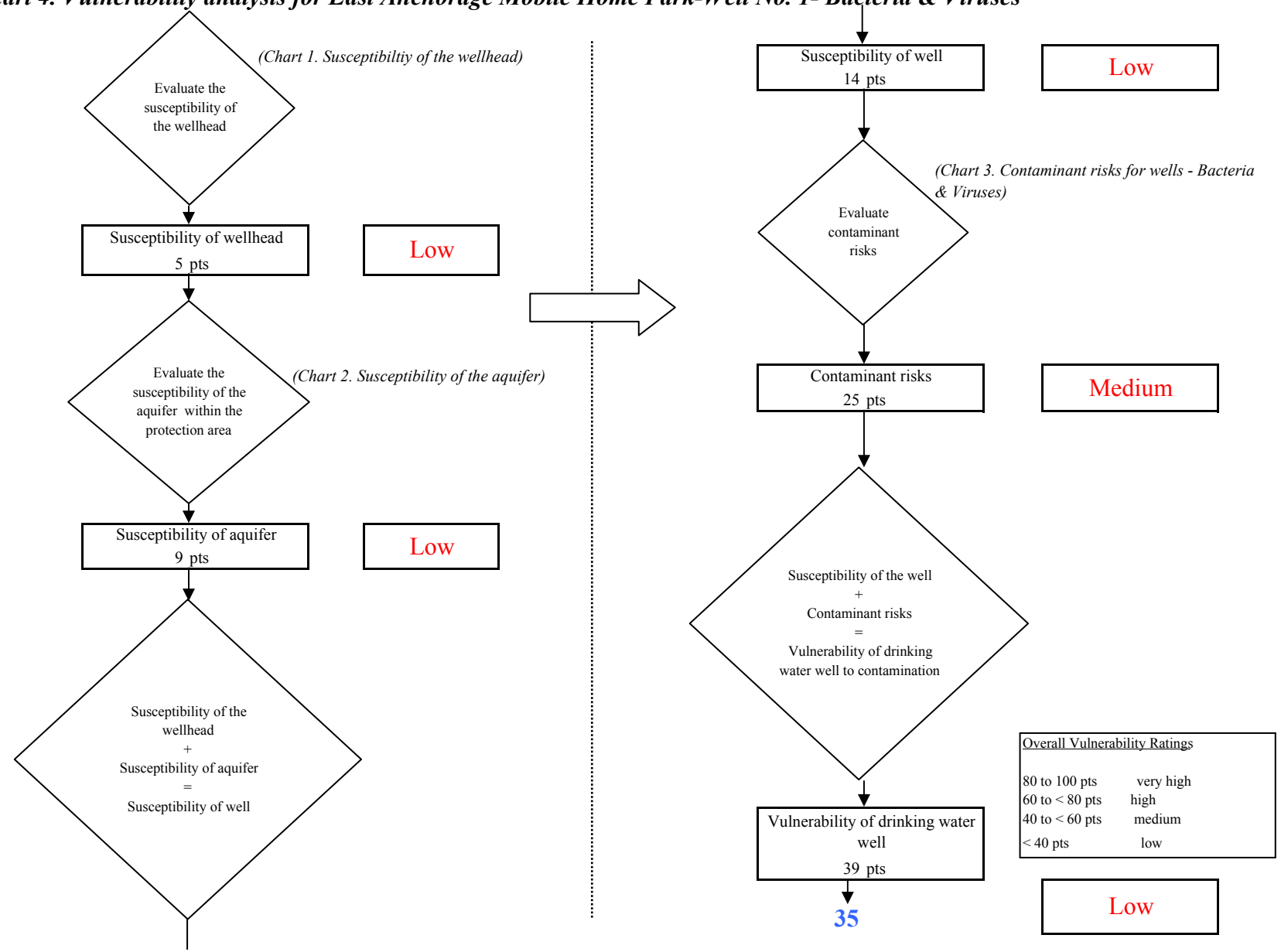


Chart 5. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Nitrates and Nitrites

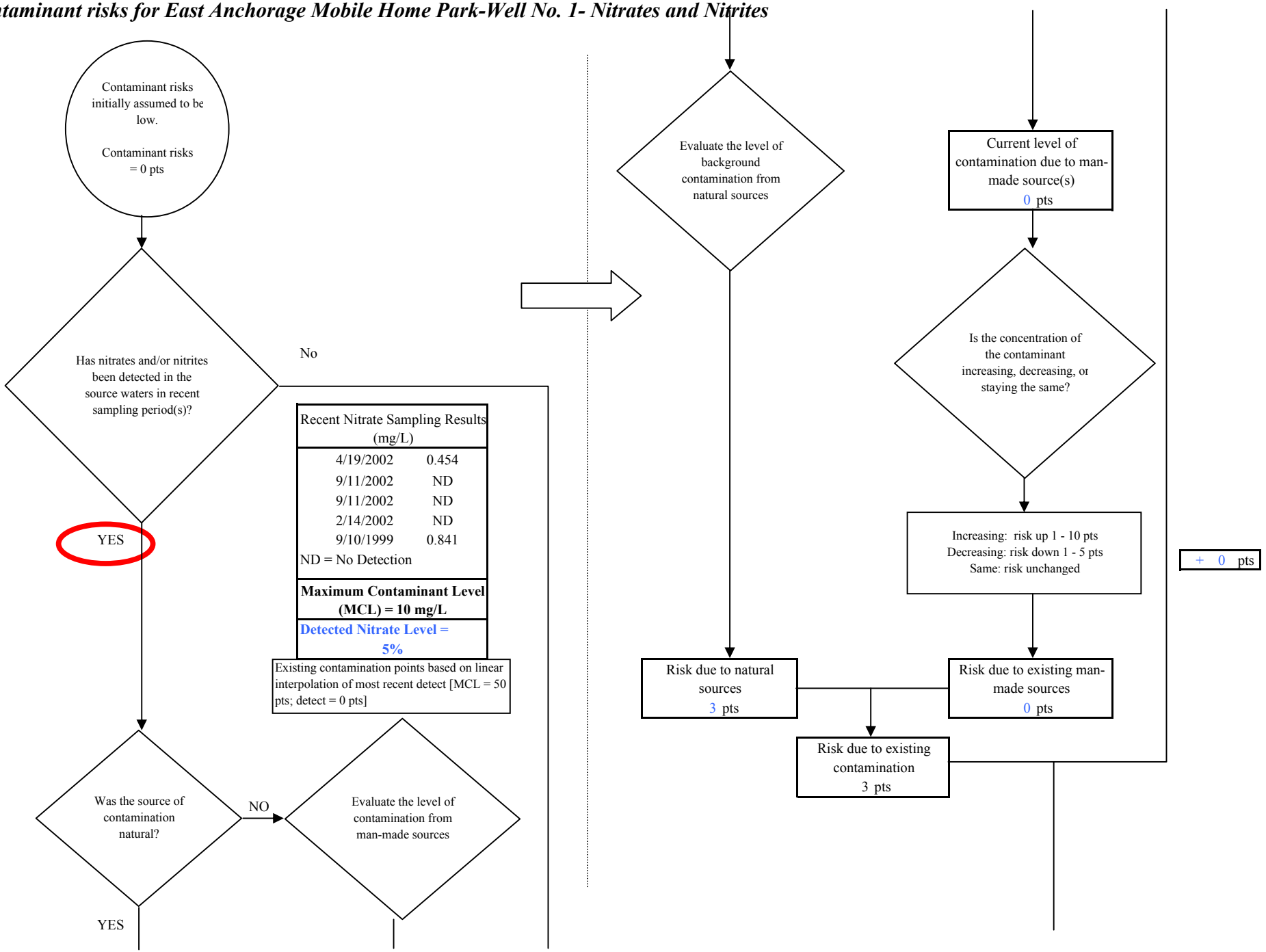


Chart 5. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Nitrates and Nitrites

+ 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)	1	0	1
Low(s)	1	7	8

	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

Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO

Risk unchanged

YES

Sewer lines

Increase risk 1 - 10 pts

+ 5 pts

Chart 5. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Nitrates and Nitrites

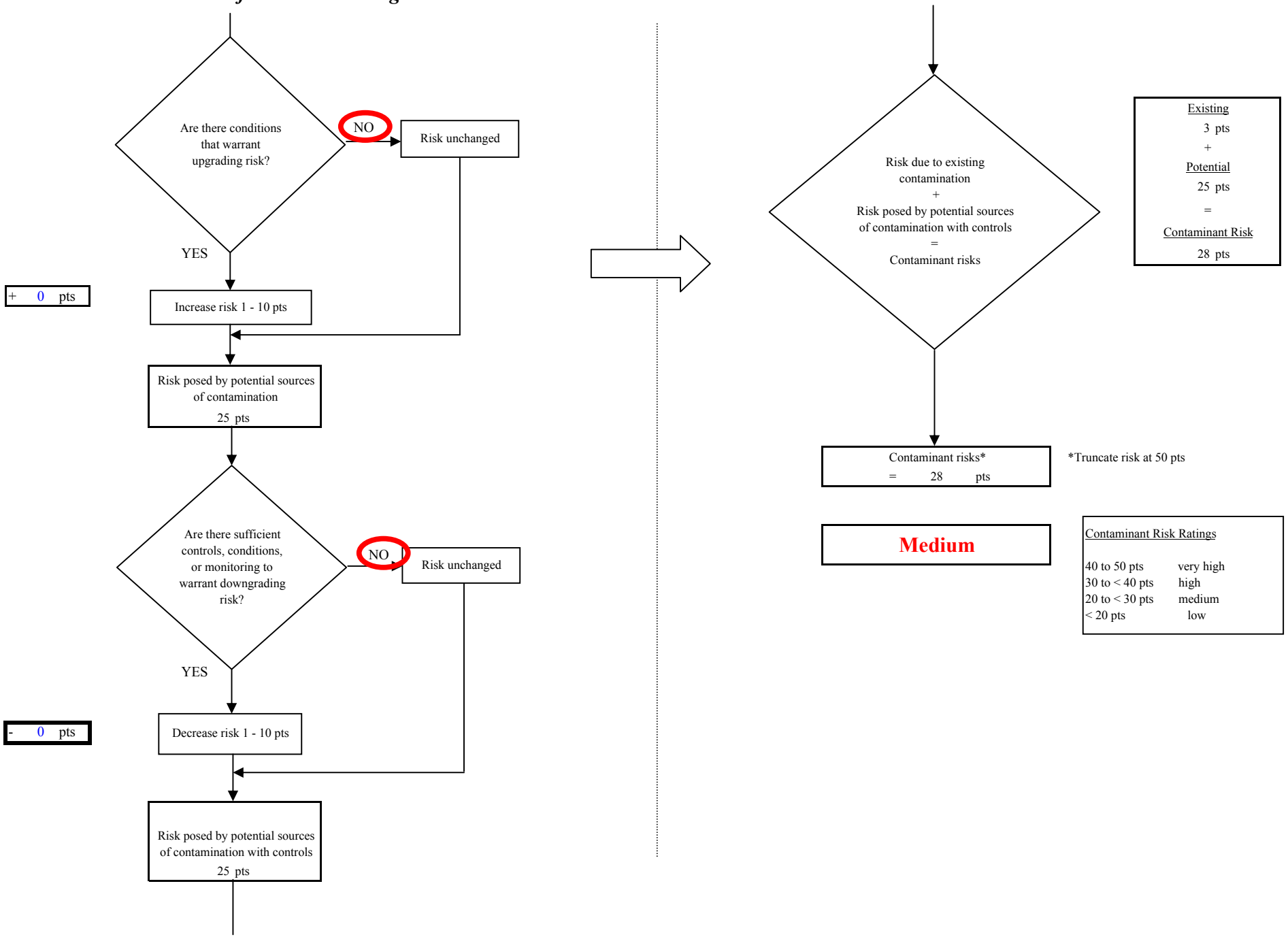


Chart 6. Vulnerability analysis for East Anchorage Mobile Home Park-Well No. 1- Nitrates and Nitrites

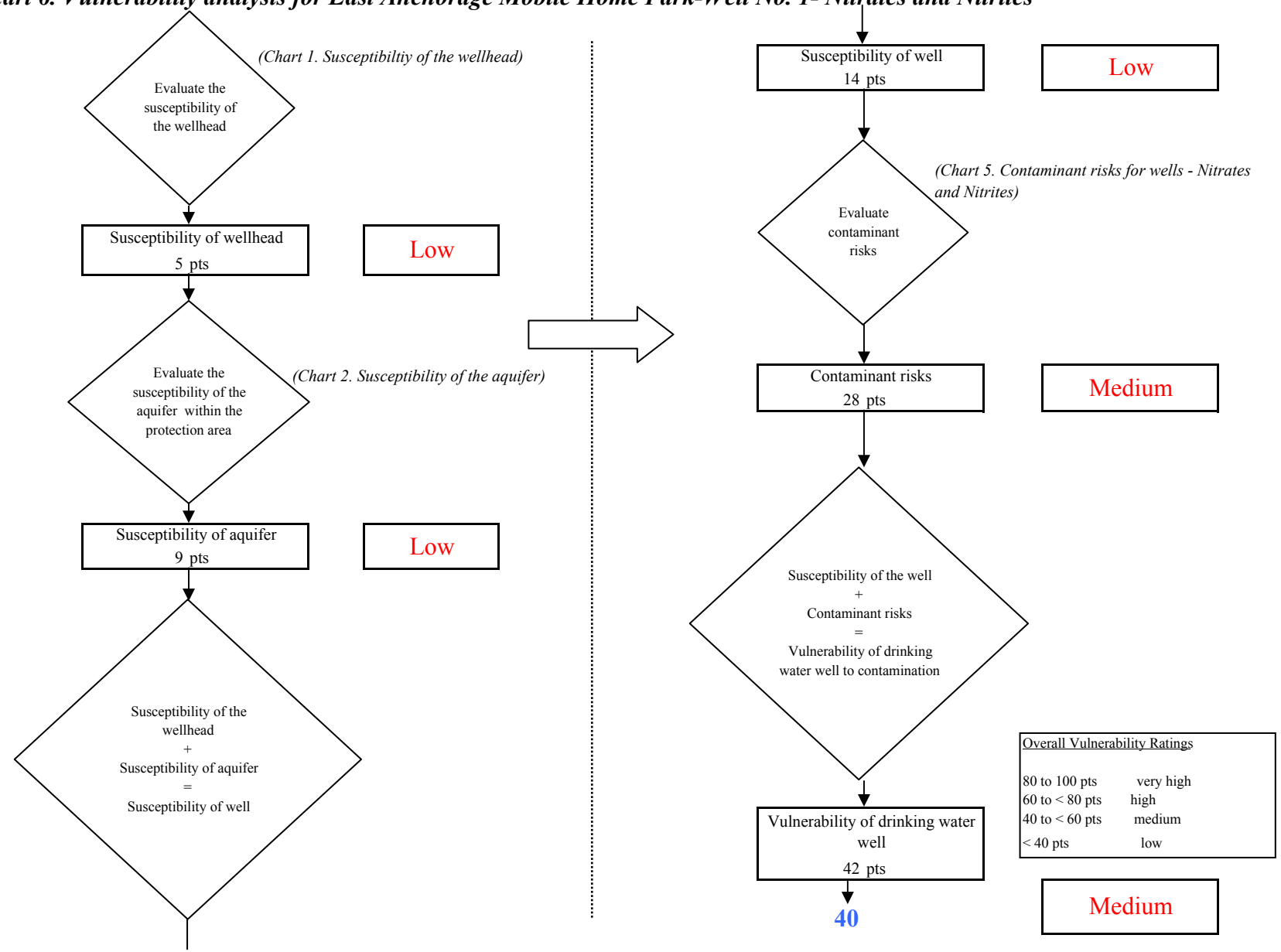


Chart 7. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Volatile Organic Chemicals

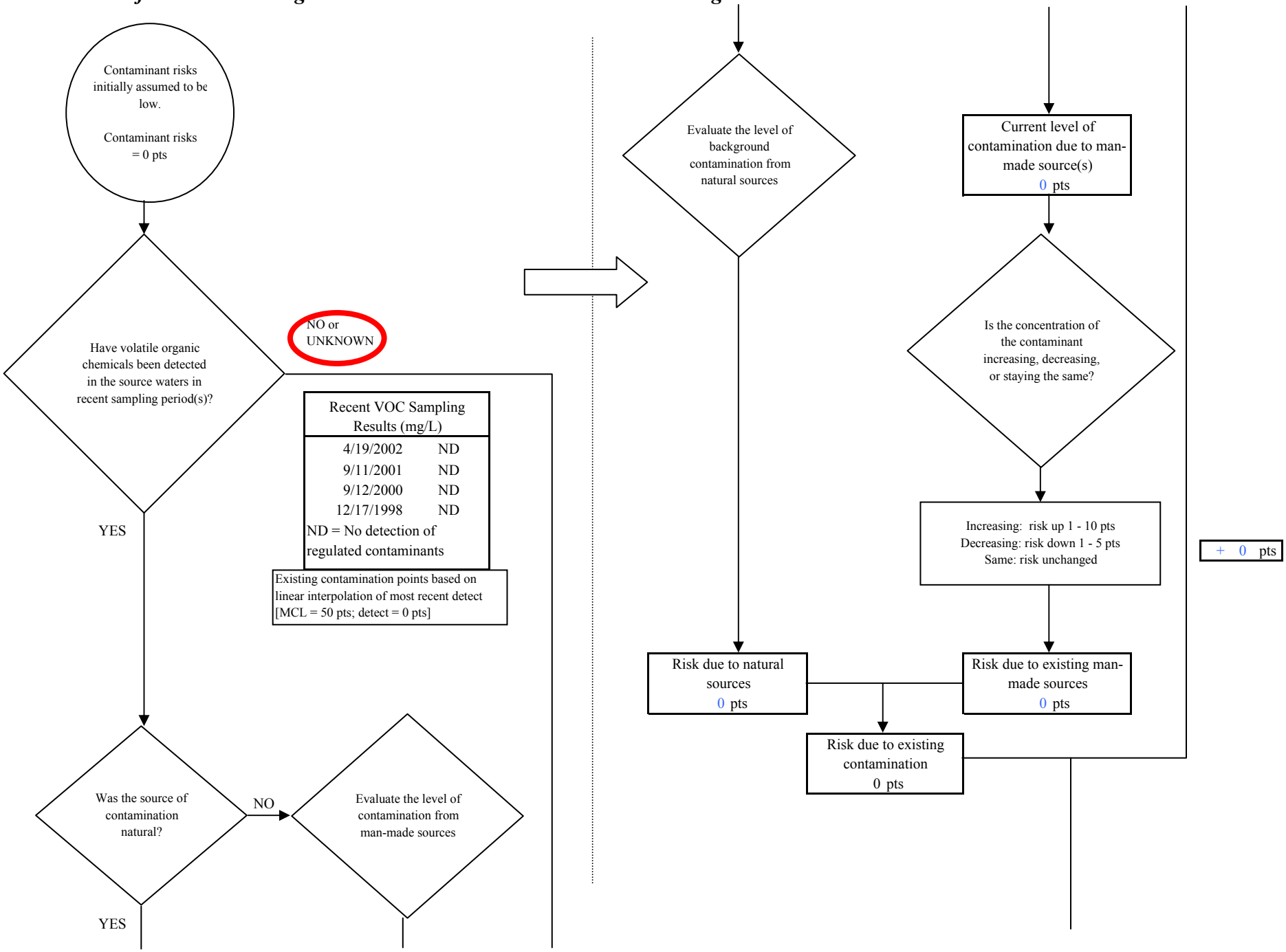


Chart 7. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Volatile Organic Chemicals

+ 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)	0	2	2
Low(s)	2	5	7

	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

Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO

Risk unchanged

YES

Roads

Increase risk 1 - 10 pts

+ 2 pts

Chart 7. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Volatile Organic Chemicals

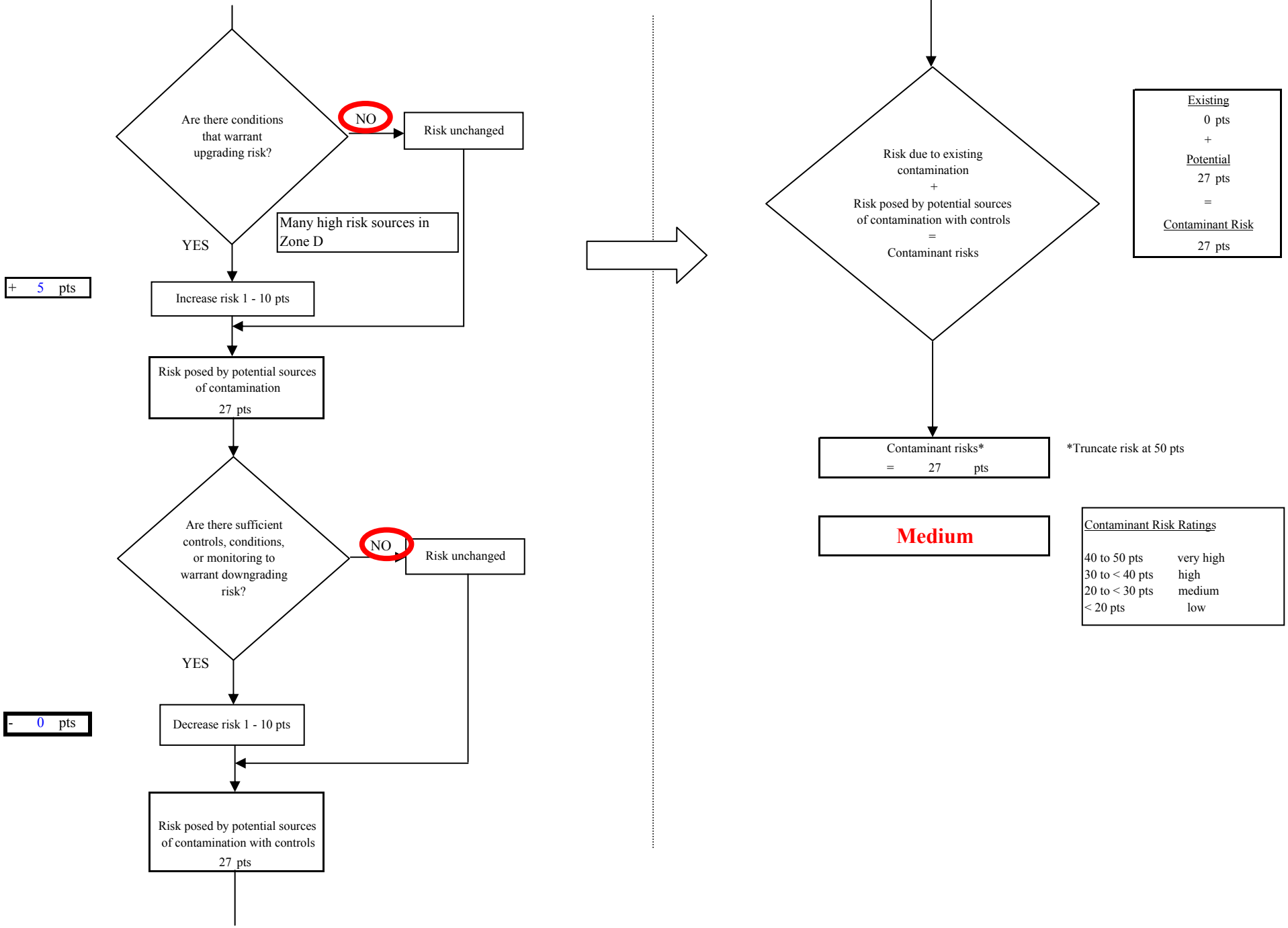


Chart 8. Vulnerability analysis for East Anchorage Mobile Home Park-Well No. 1- Volatile Organic Chemicals

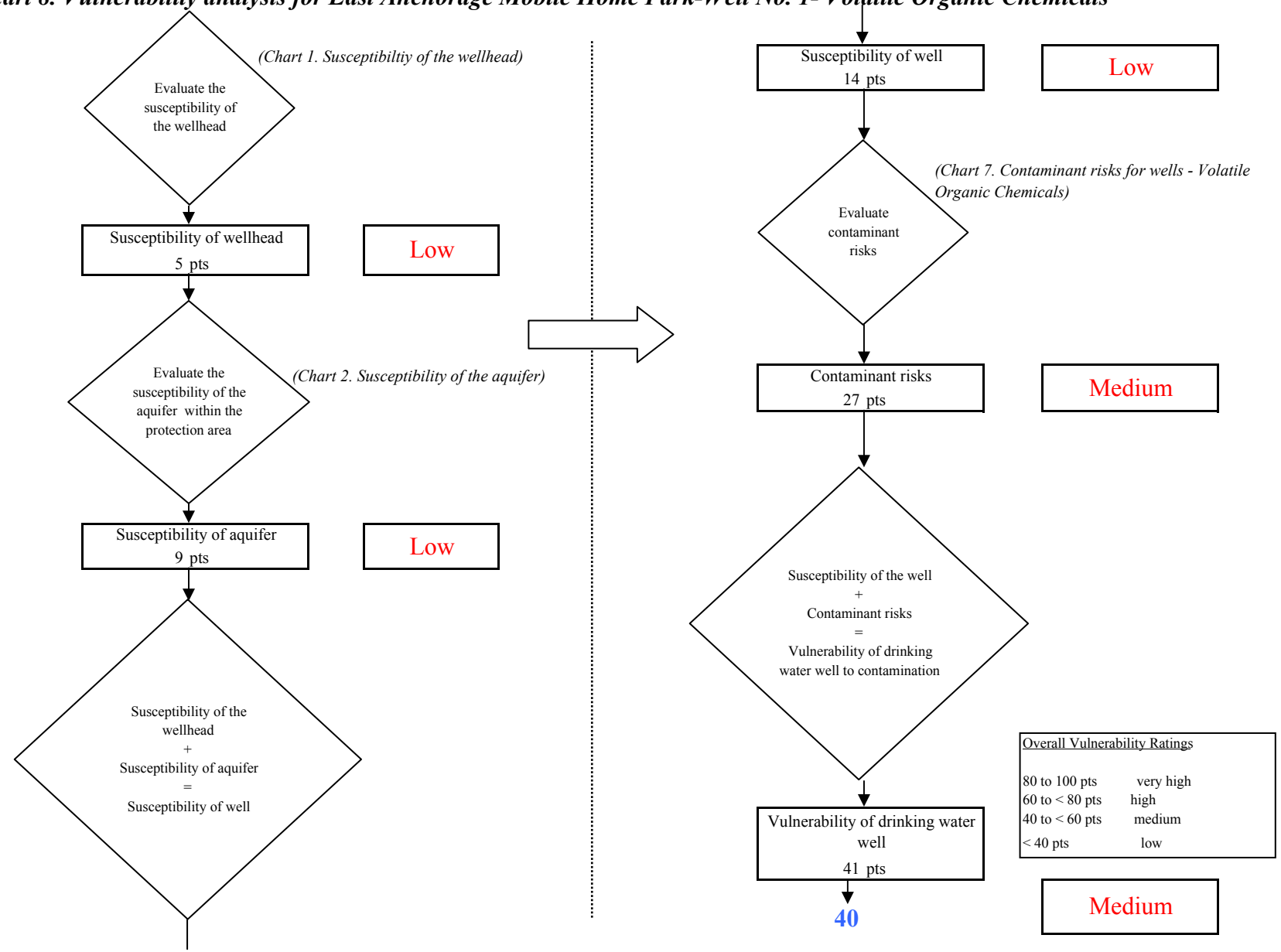


Chart 9. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Heavy Metals, Cyanide and Other Inorganic Chemicals

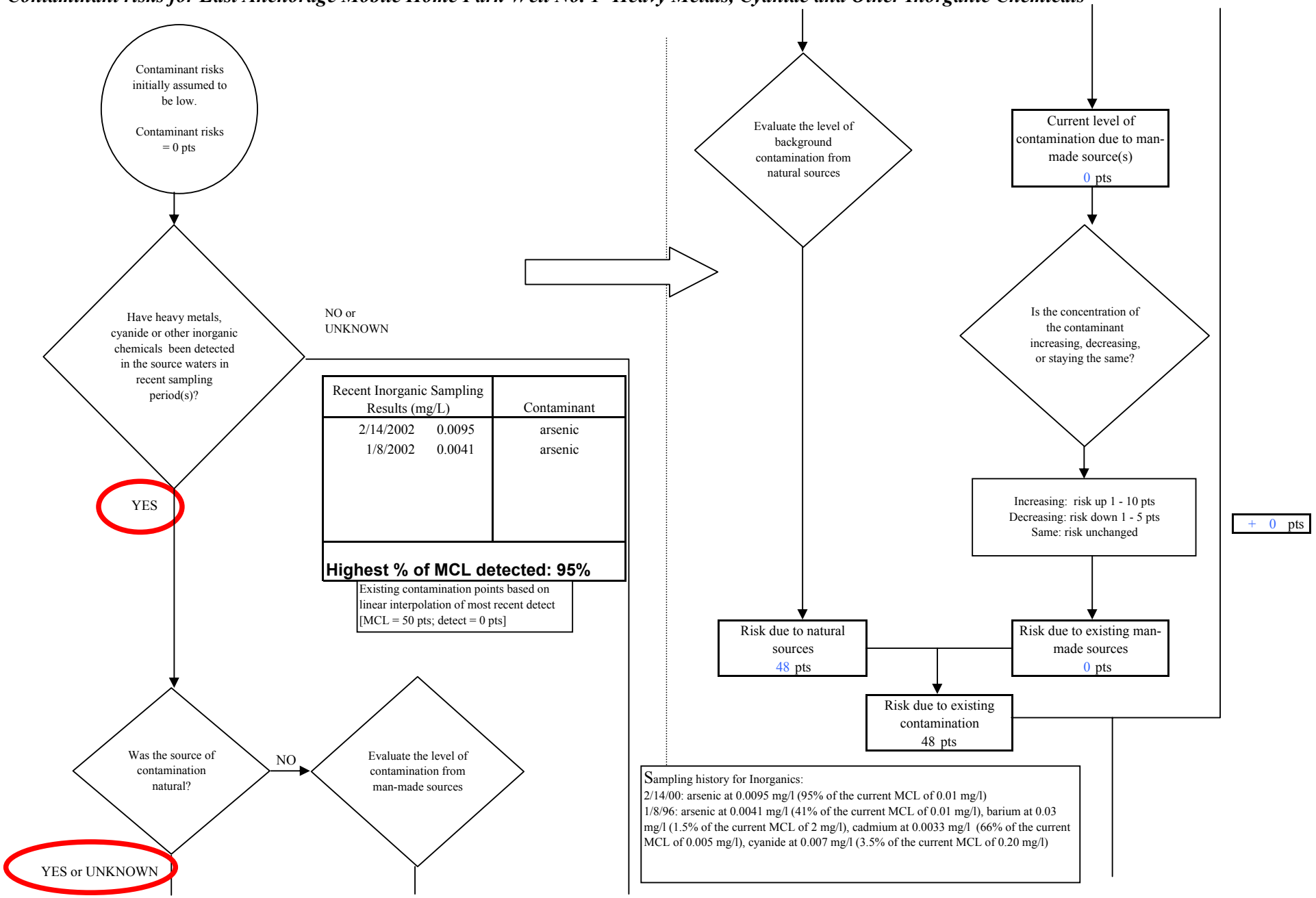


Chart 9. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Heavy Metals, Cyanide and Other Inorganic Chemicals

+ 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)	0	1	1
Low(s)	2	6	8

	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 → Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO → Risk unchanged

Roads

YES → Increase risk 1 - 10 pts

+ 2 pts

Chart 9. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Heavy Metals, Cyanide and Other Inorganic Chemicals

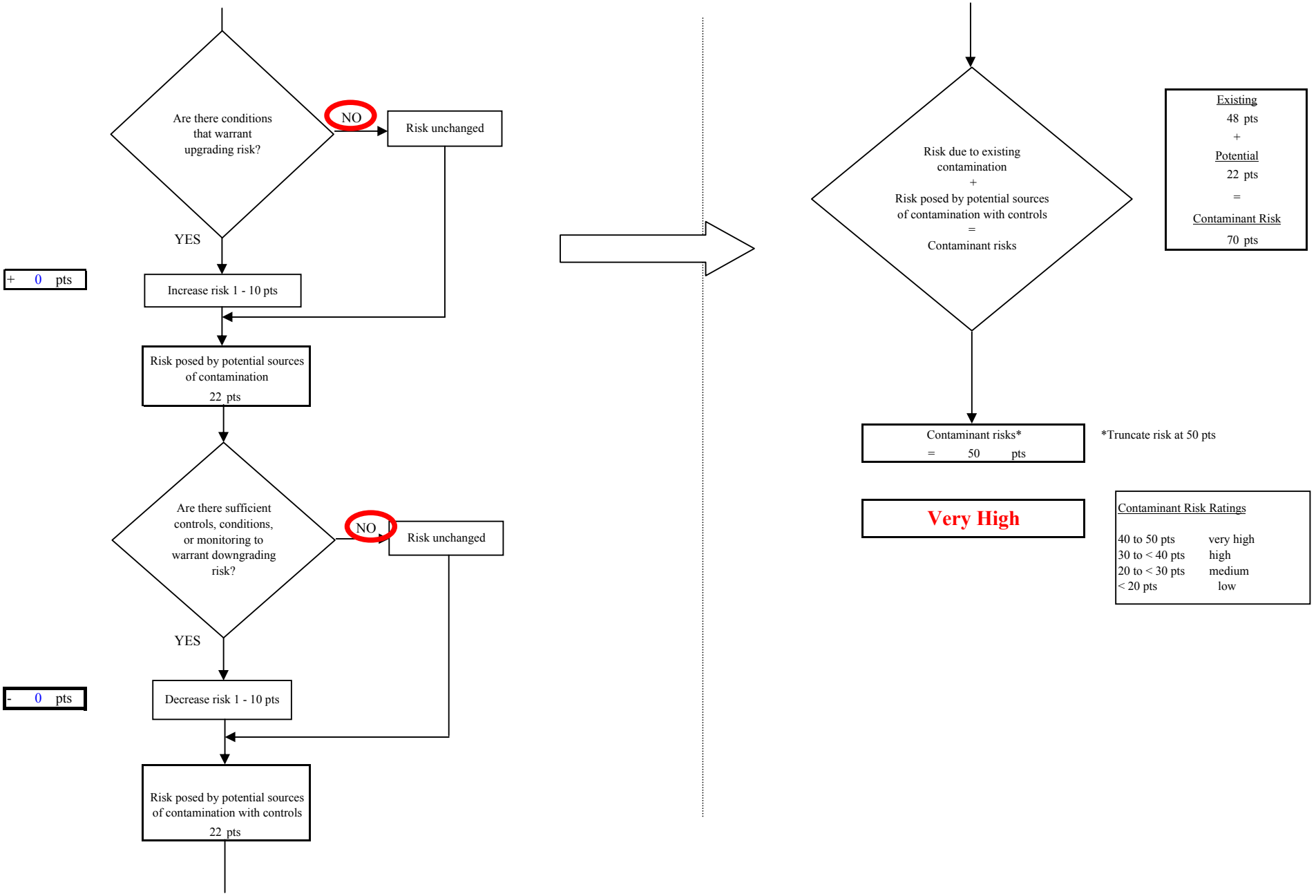


Chart 10. Vulnerability analysis for East Anchorage Mobile Home Park-Well No. 1- Heavy Metals, Cyanide and Other Inorganic Chemicals

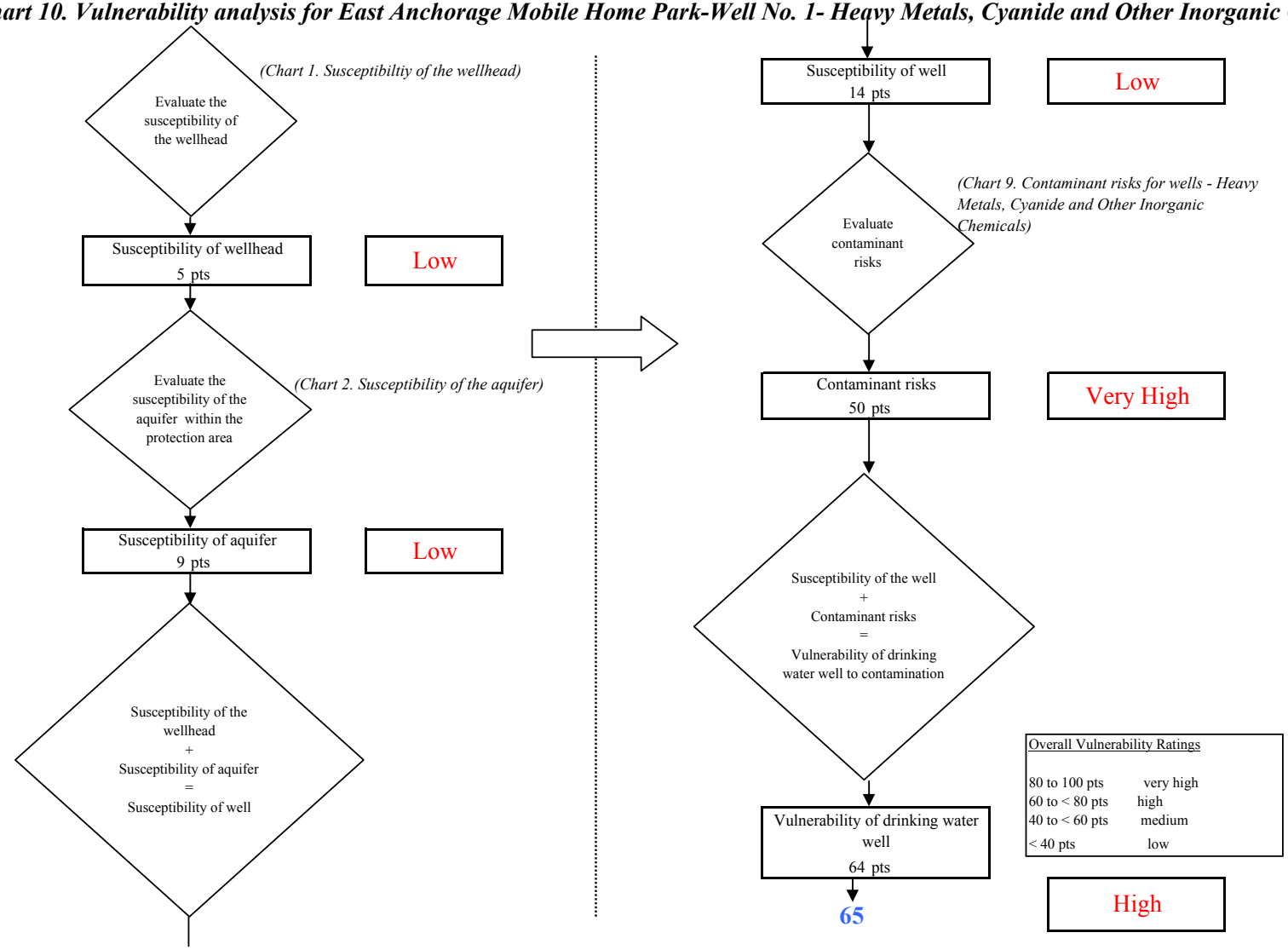


Chart 11. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Synthetic Organic Chemicals

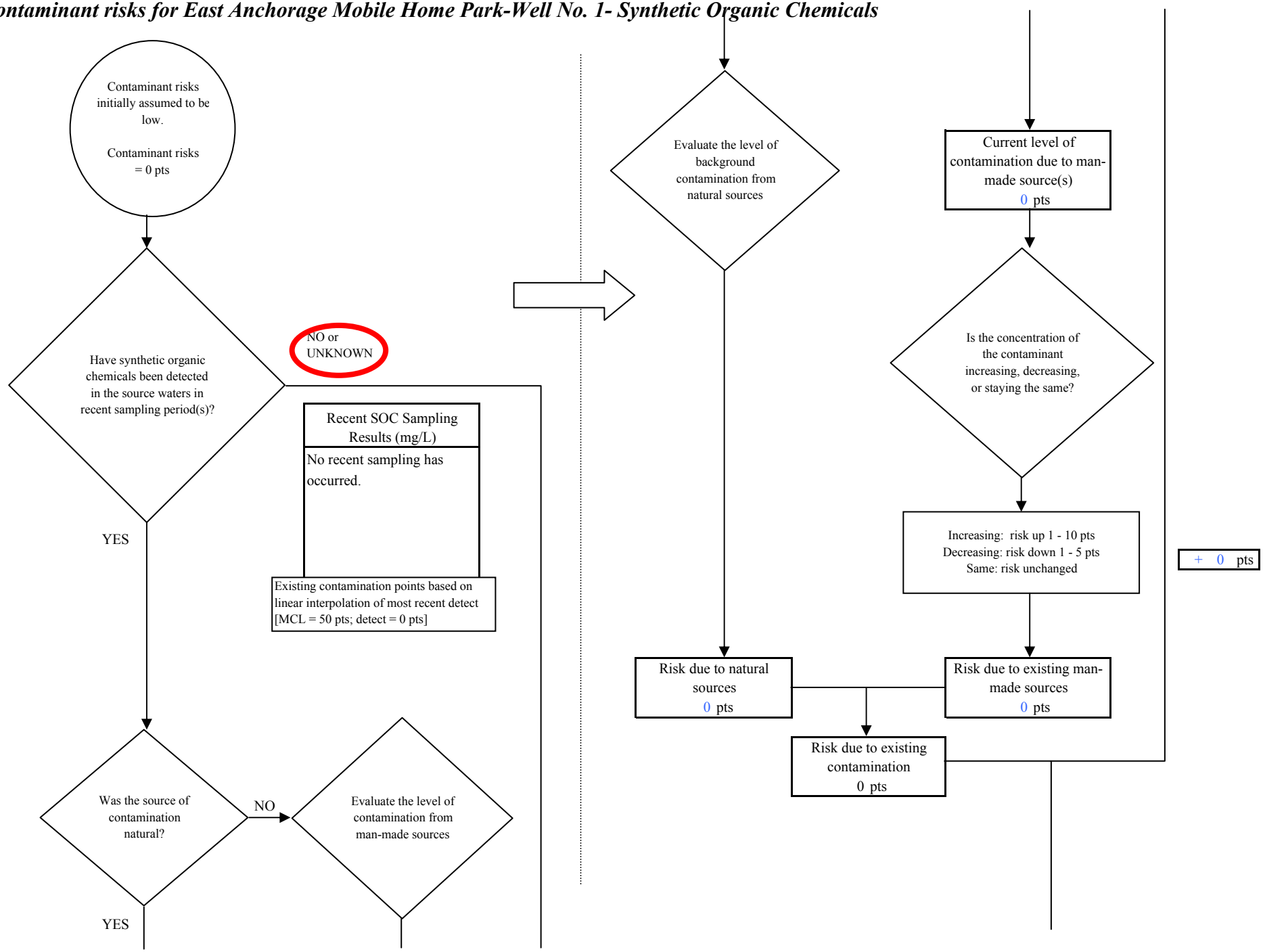
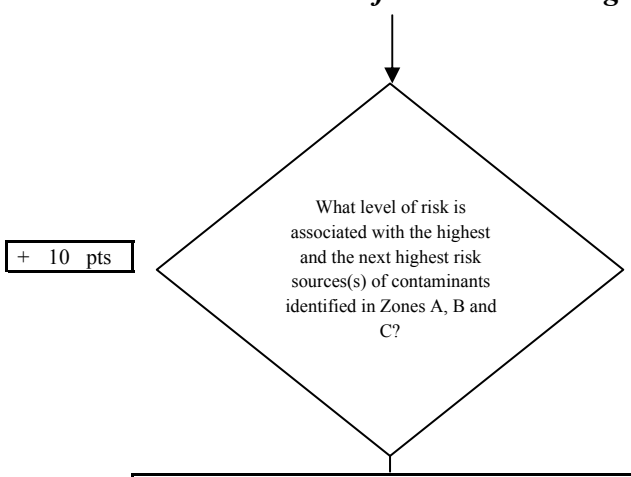


Chart 11. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Synthetic Organic Chemicals



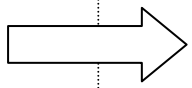
Risk Levels for Contaminant Sources identified in Zones A, B and C

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	0	0	0
Medium(s)	0	0	0
Low(s)	1	3	4

	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 10

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.



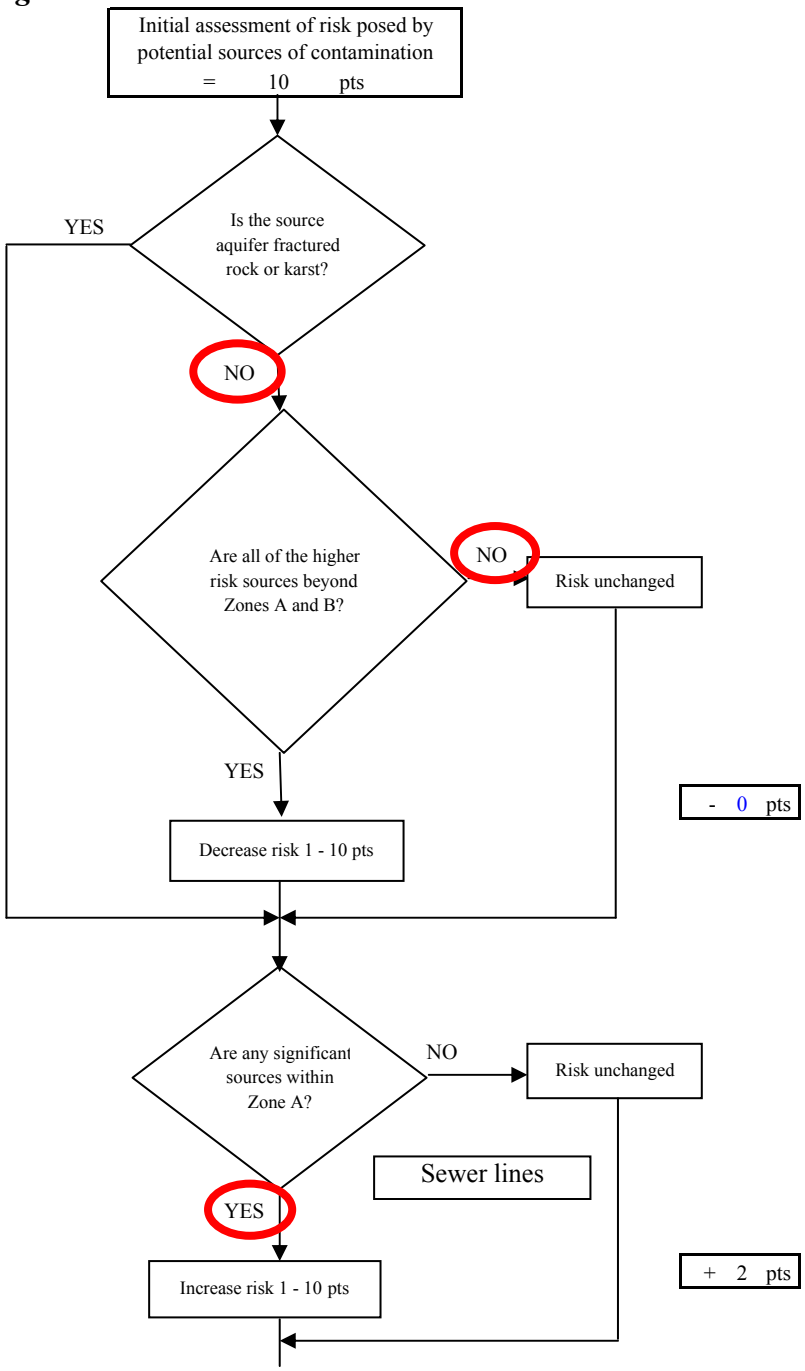


Chart 11. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Synthetic Organic Chemicals

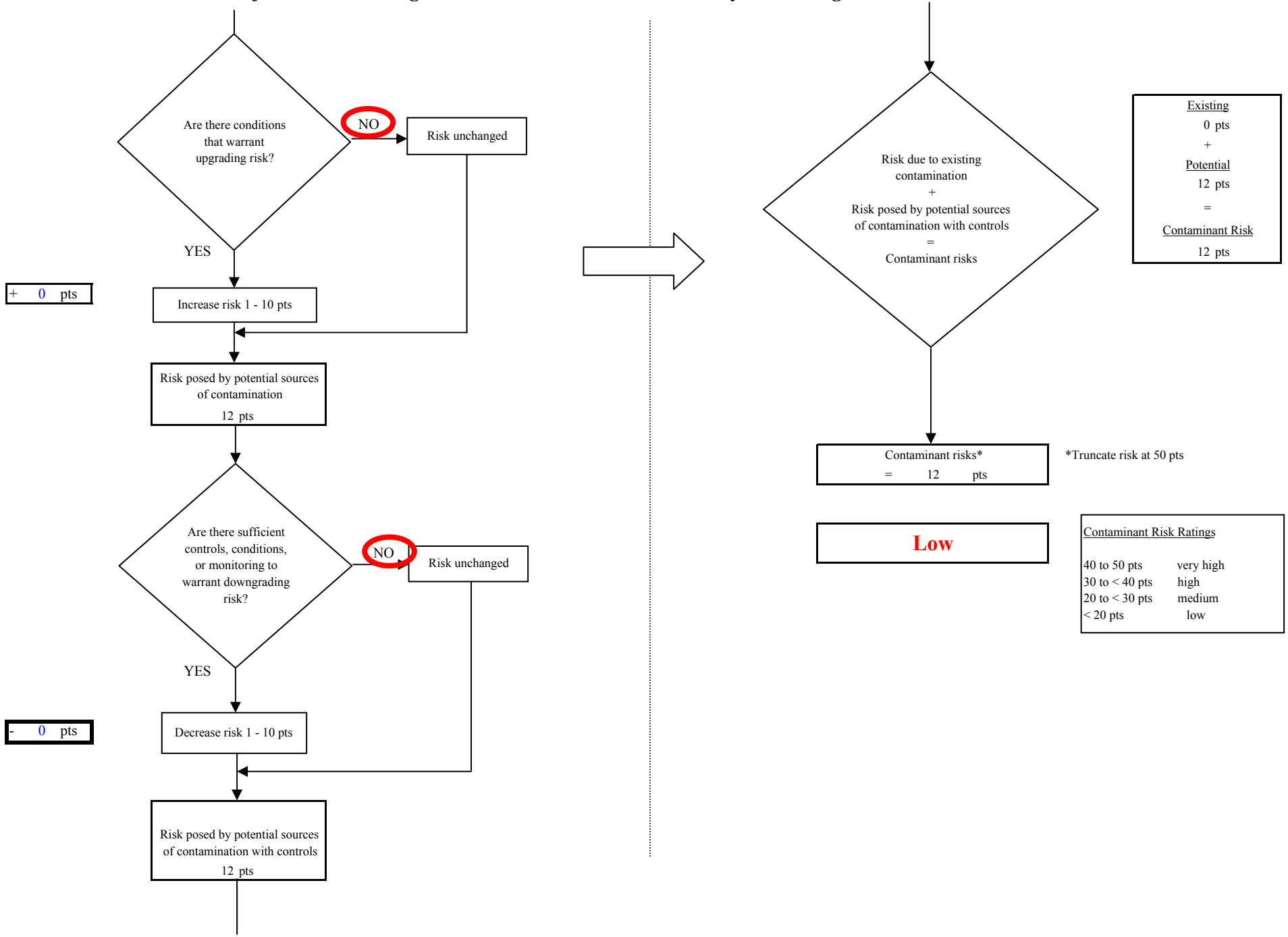


Chart 12. Vulnerability analysis for East Anchorage Mobile Home Park-Well No. 1- Synthetic Organic Chemicals

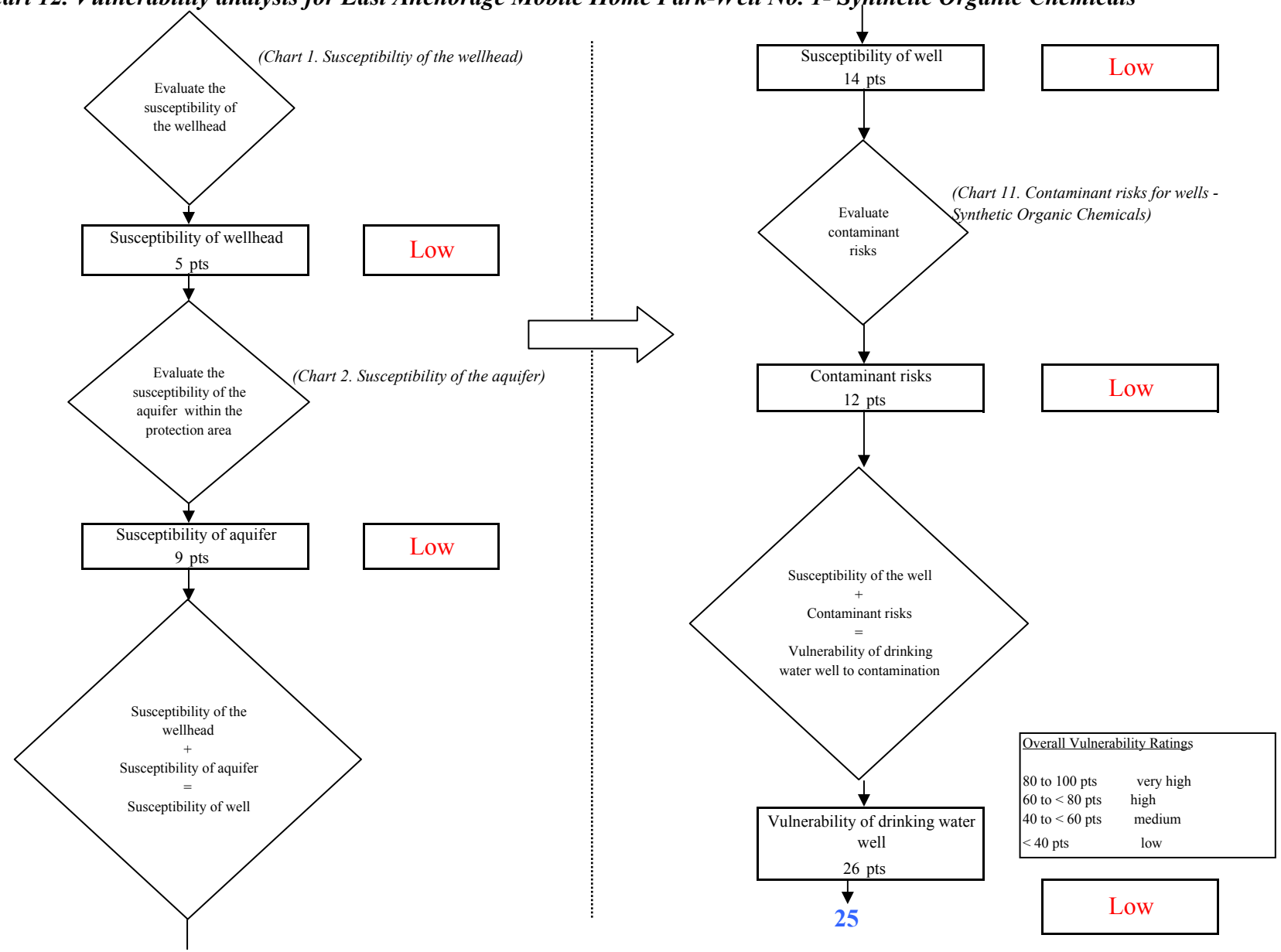


Chart 13. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Other Organic Chemicals

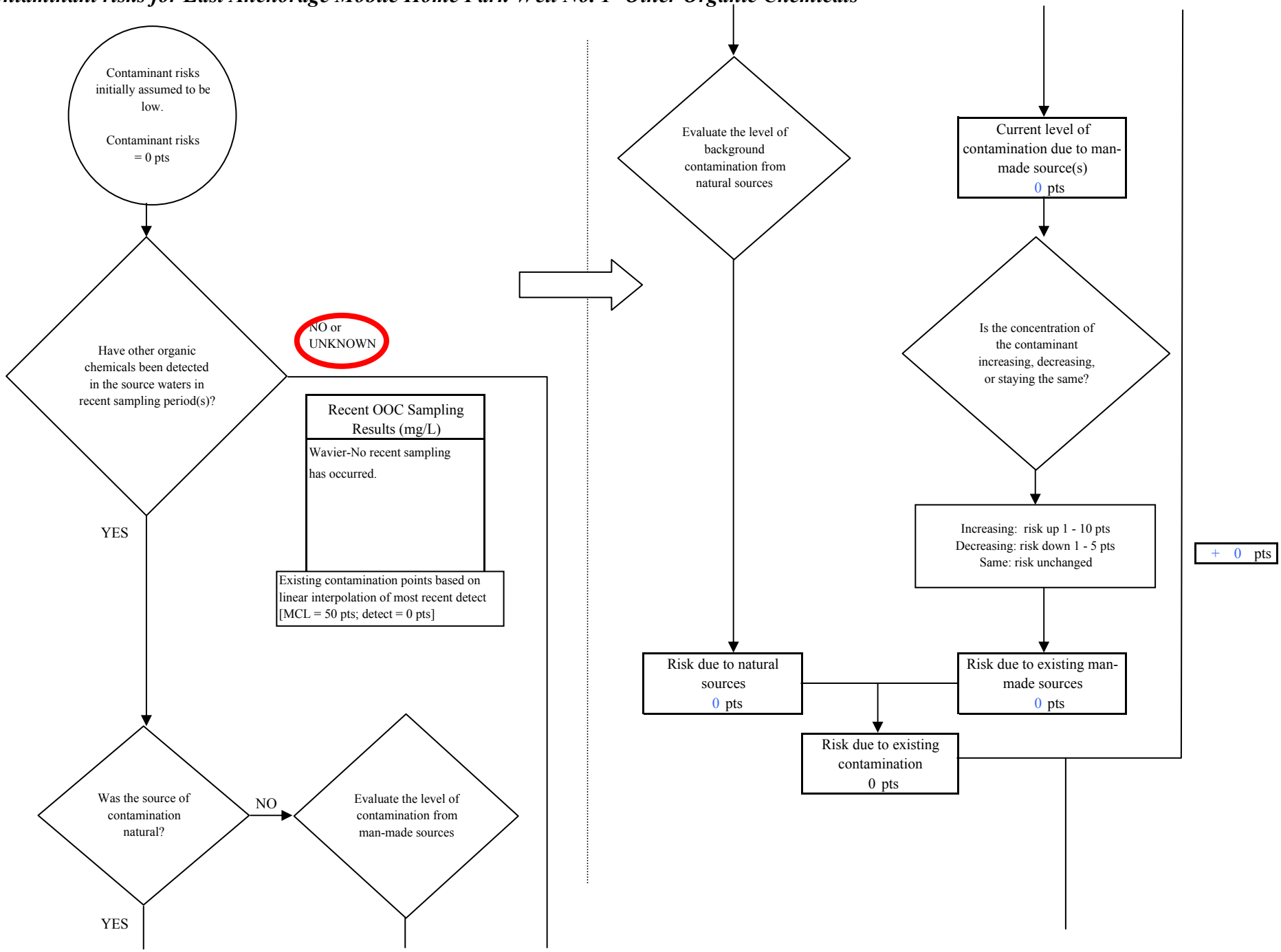


Chart 13. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Other Organic Chemicals

+ 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)	0	2	2
Low(s)	2	3	5

	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 → Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO → Risk unchanged

YES → Increase risk 1 - 10 pts

Sewer lines

+ 2 pts

Chart 13. Contaminant risks for East Anchorage Mobile Home Park-Well No. 1- Other Organic Chemicals

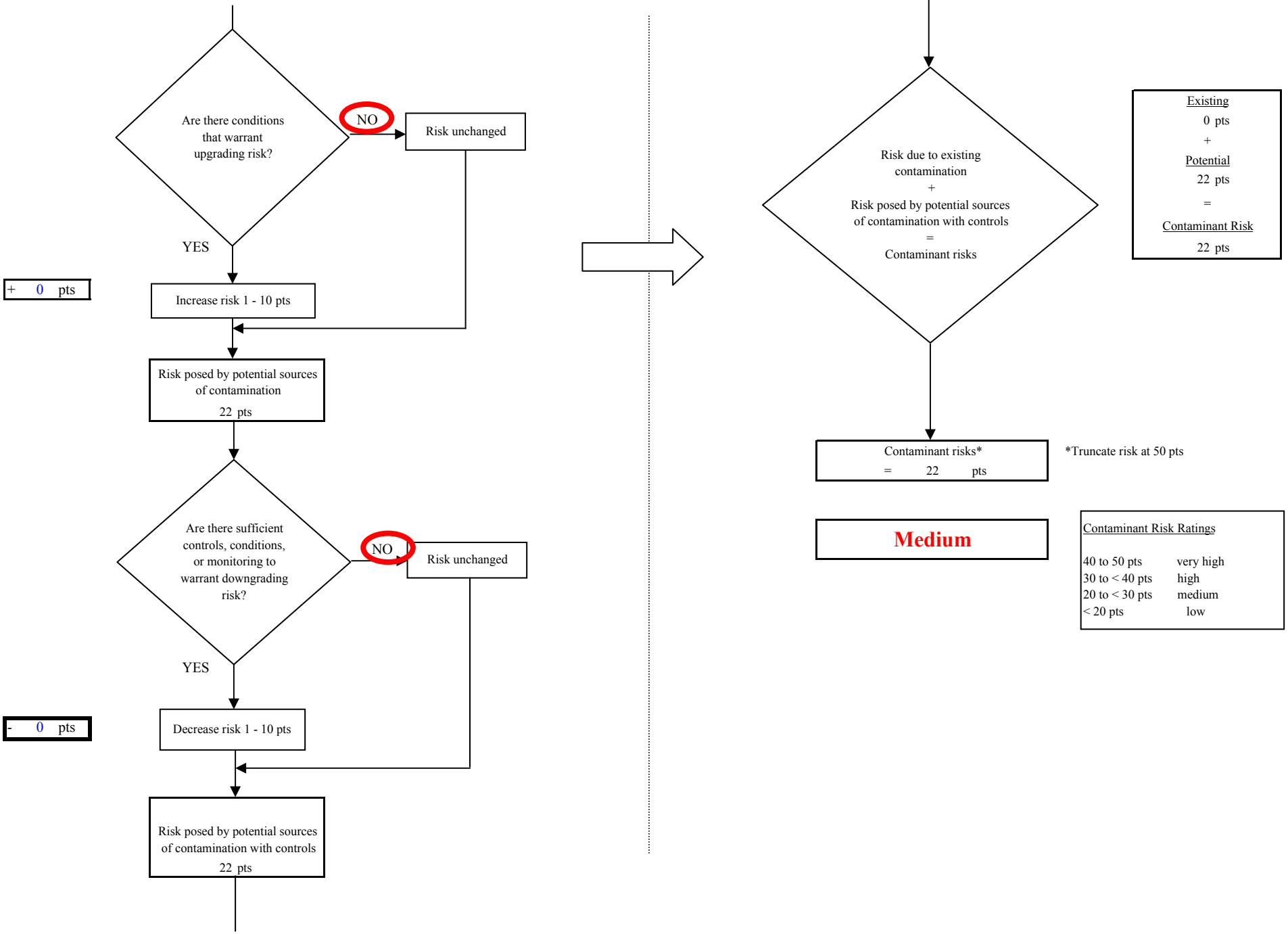


Chart 14. Vulnerability analysis for East Anchorage Mobile Home Park-Well No. 1- Other Organic Chemicals

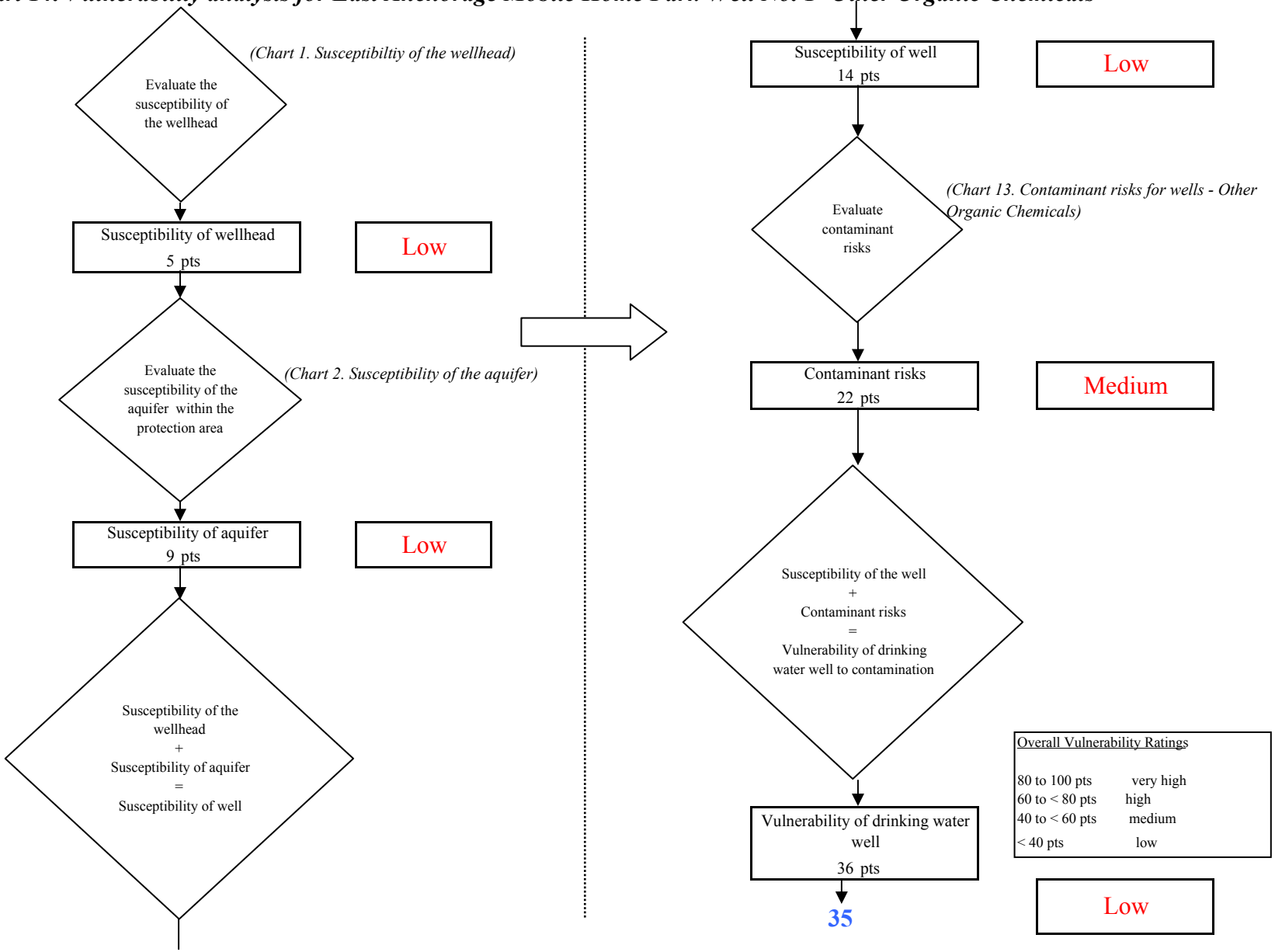


Chart 1. Susceptibility of the wellhead - East Anchorage Mobile Home Court-Well No. 2

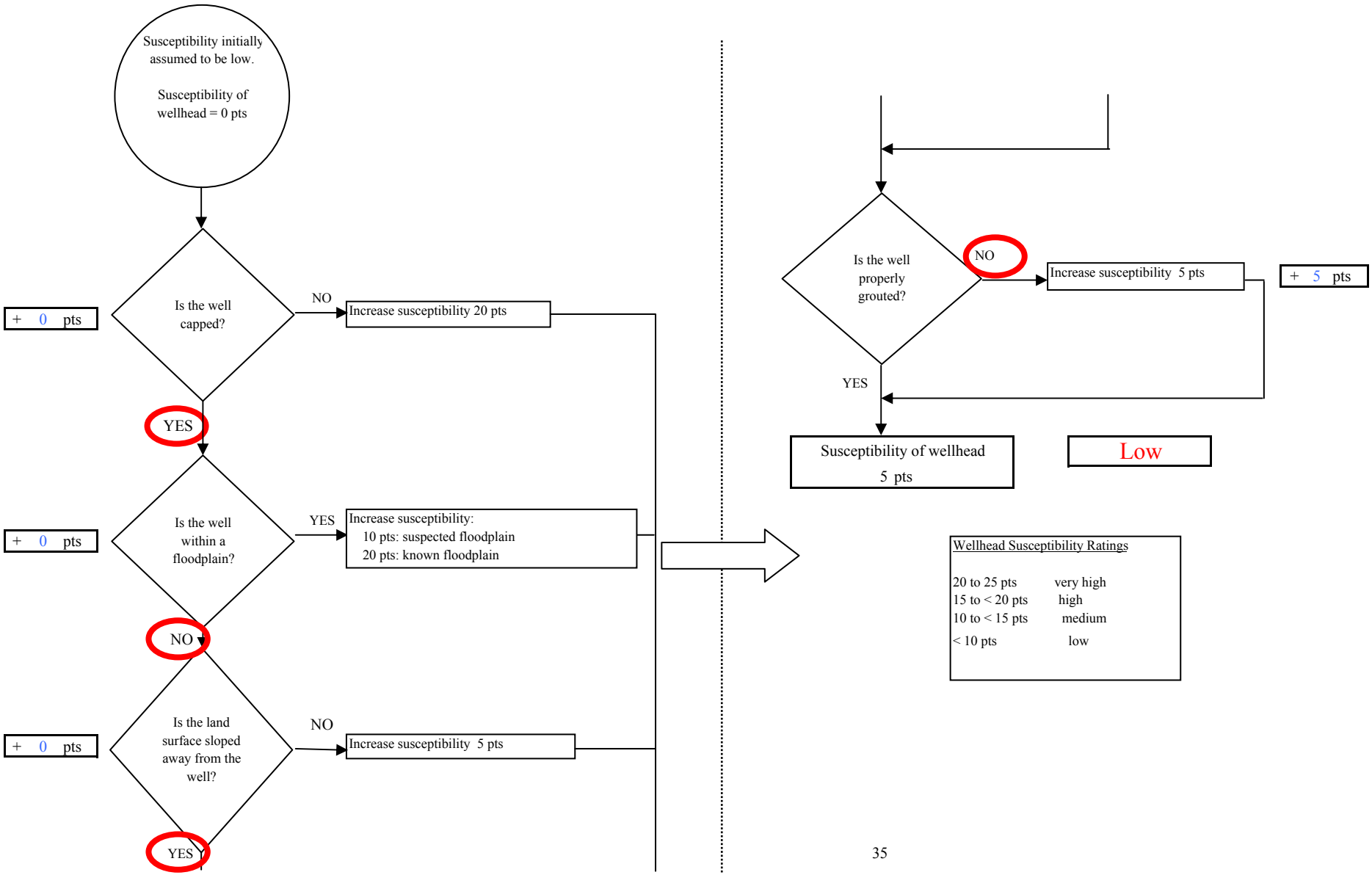


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Chart 2. Susceptibility of the aquifer - East Anchorage Mobile Home Court-Well No. 2

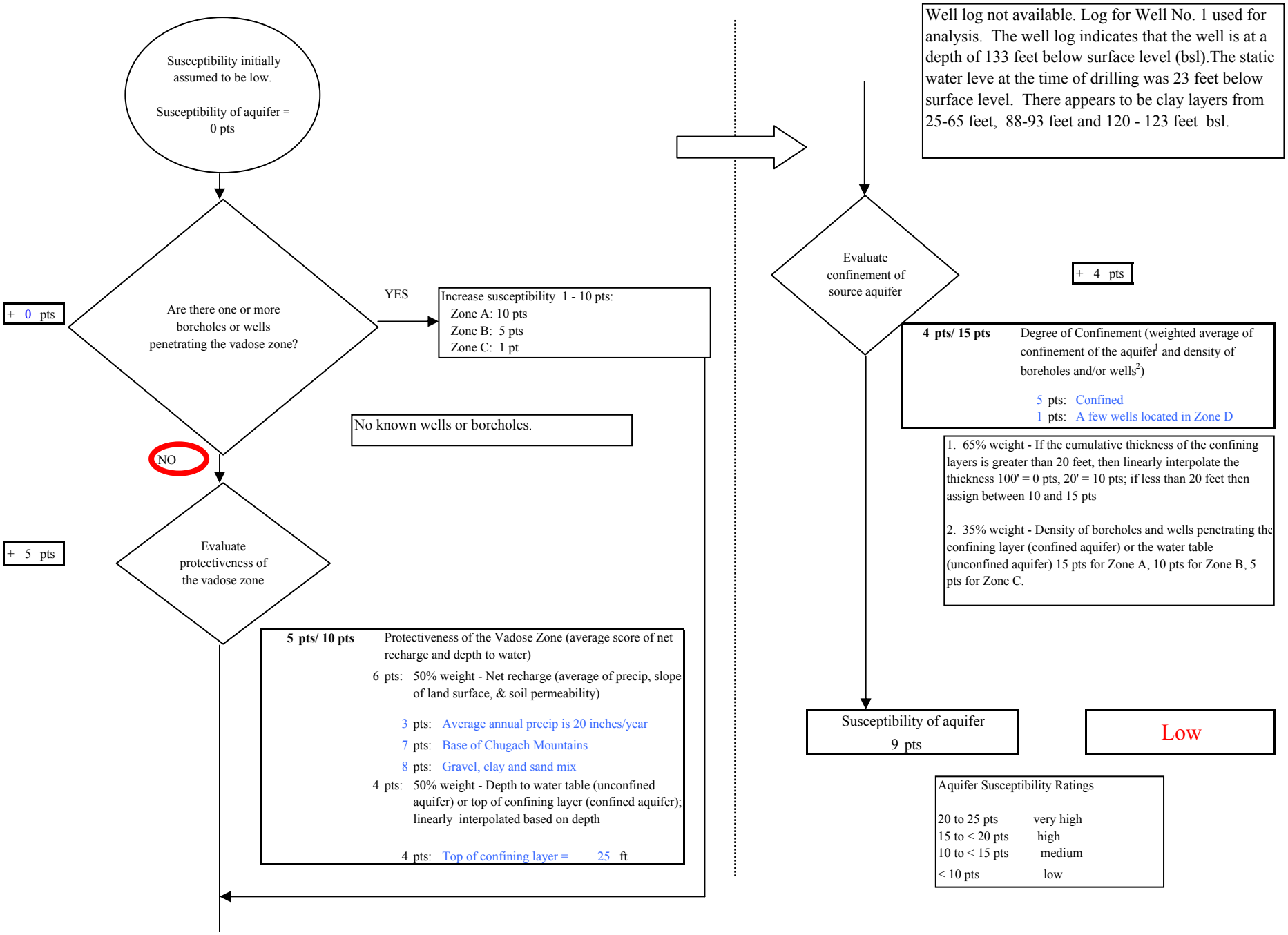
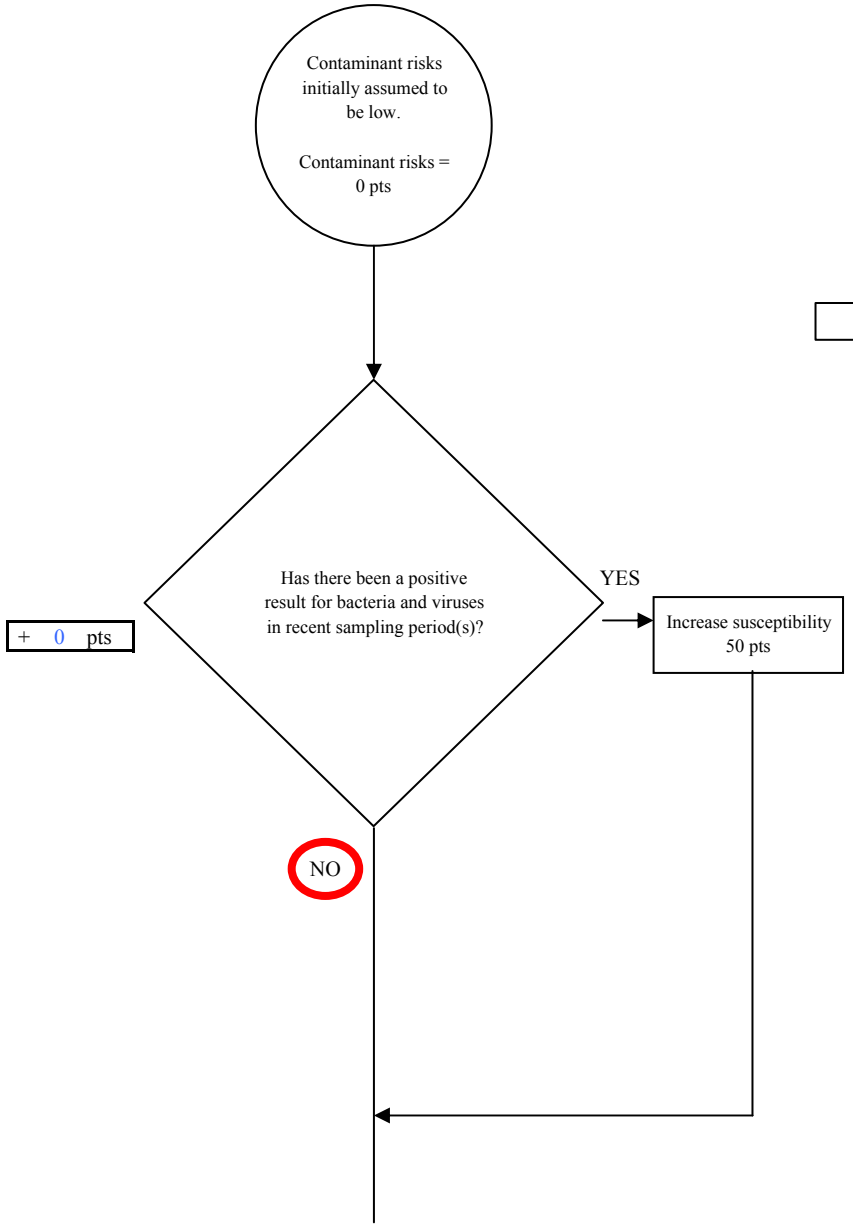
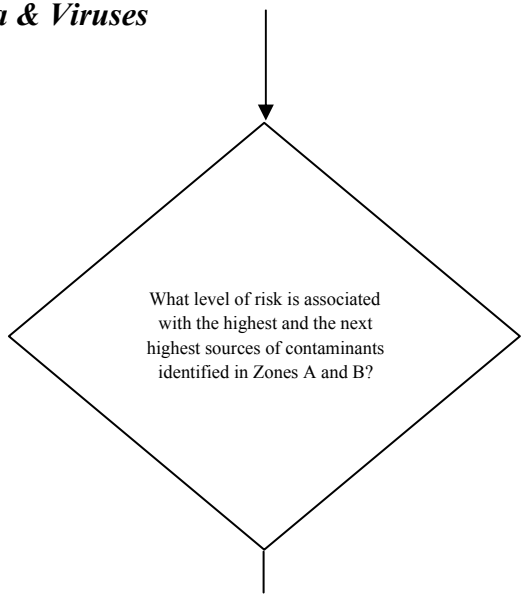


Chart 3. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Bacteria & Viruses





+ 10 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)	0	0	0
Low(s)	1	0	1

	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 10

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 East Anchorage Mobile Home Court-Well No. 2- Bacteria & Viruses

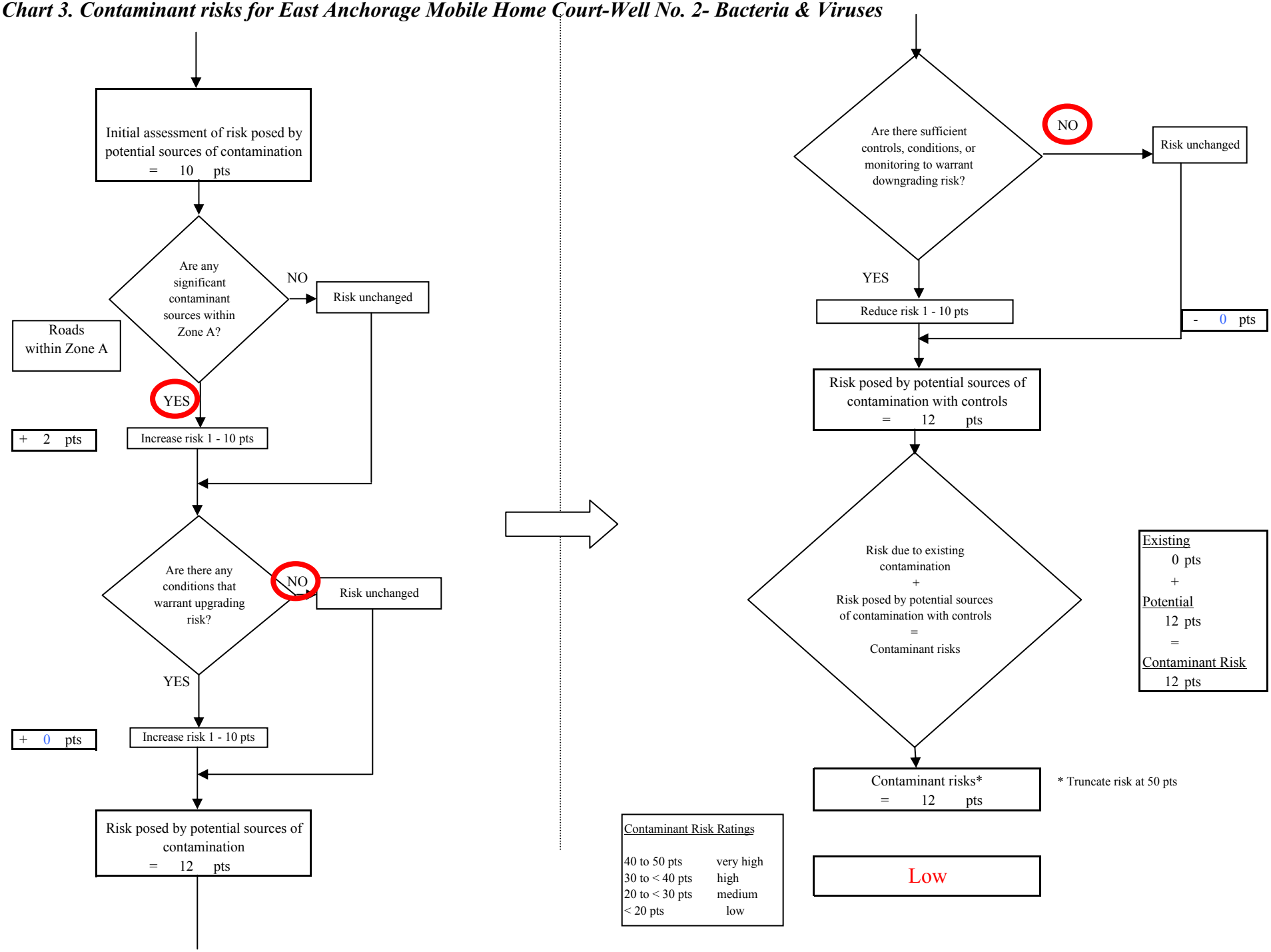


Chart 4. Vulnerability analysis for East Anchorage Mobile Home Court-Well No. 2- Bacteria & Viruses

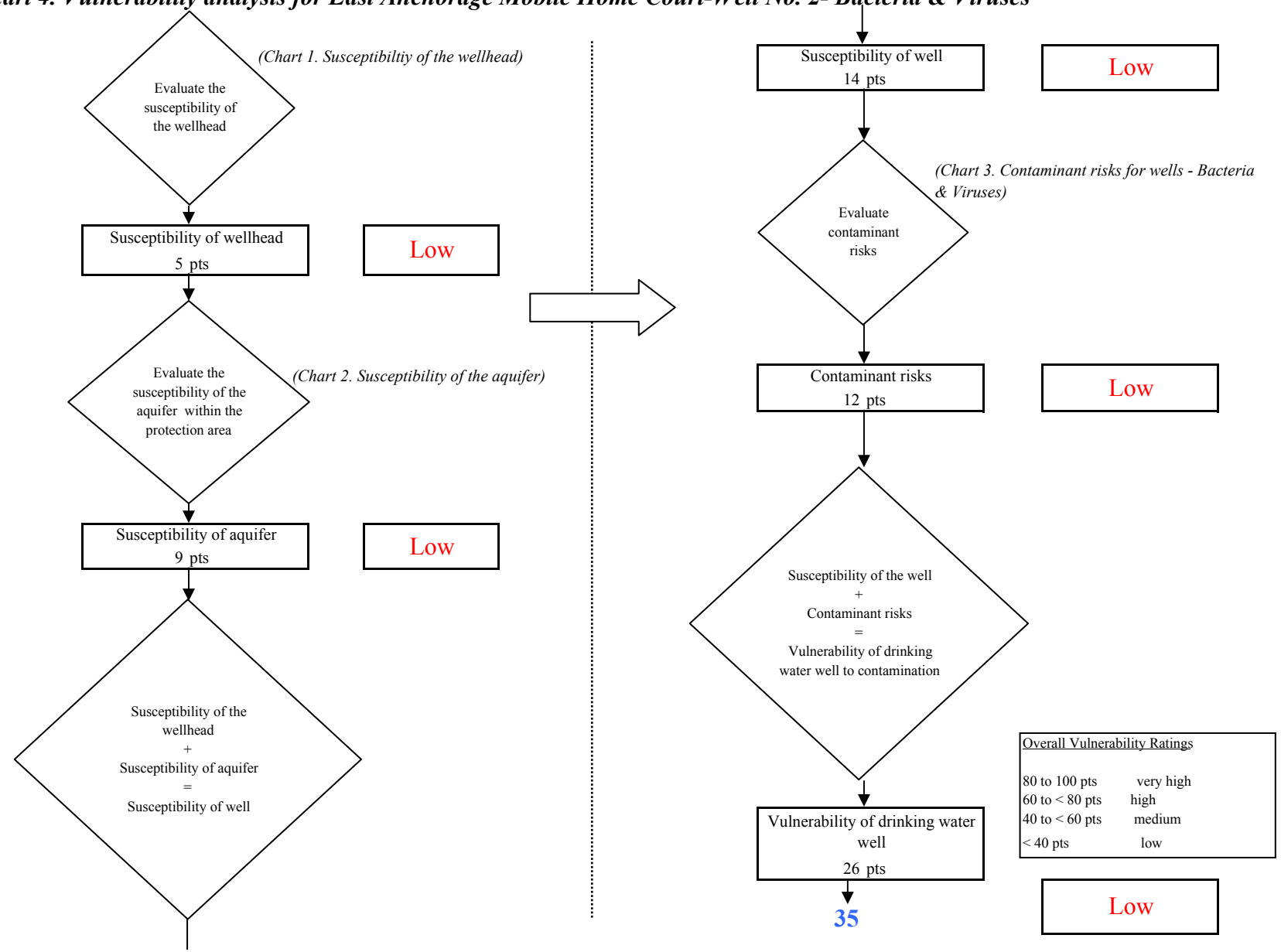


Chart 5. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Nitrates and Nitrites

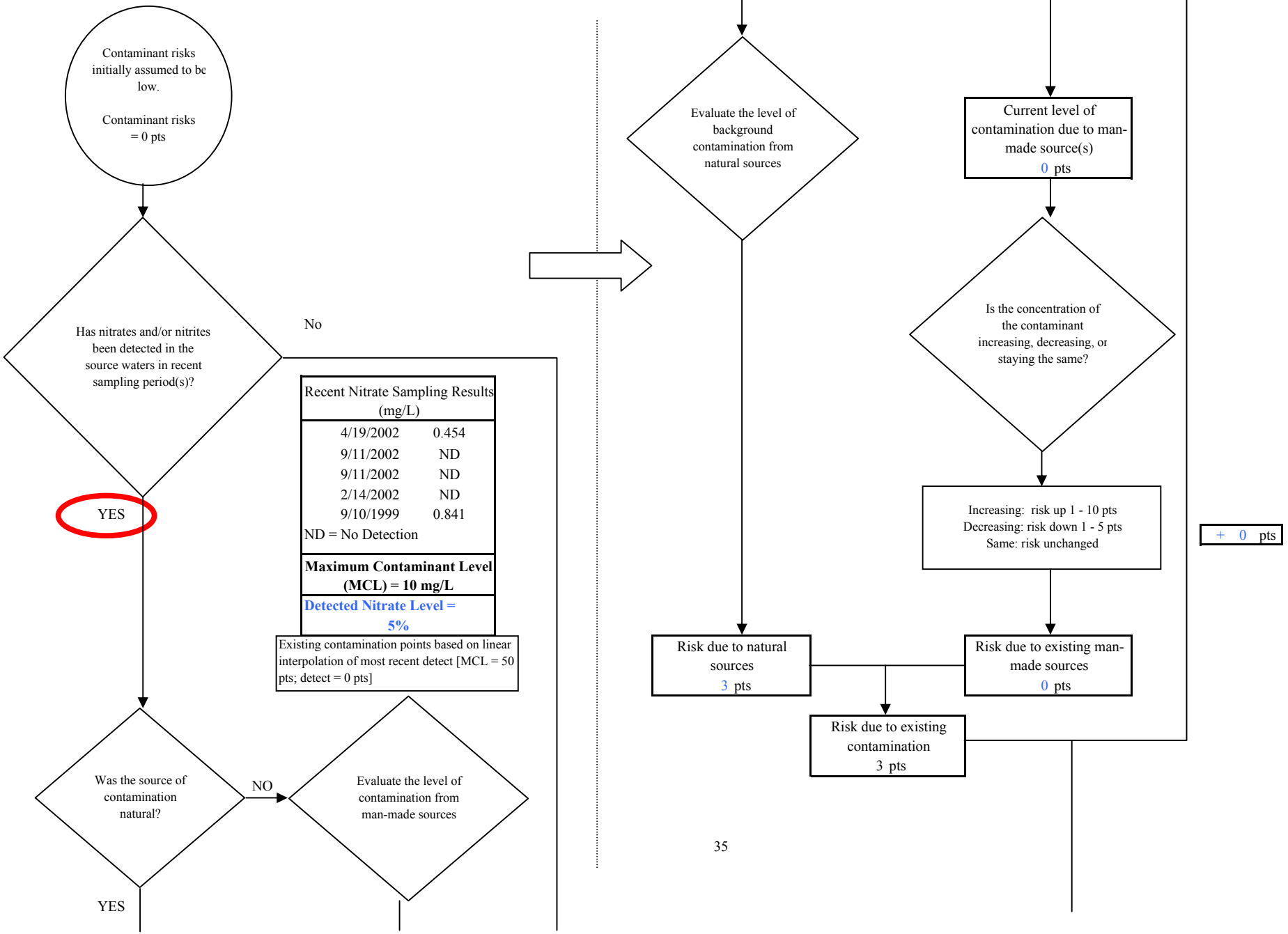


Chart 5. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Nitrates and Nitrites

+ 10 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)	0	0	0
Low(s)	1	5	6

	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 10

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 = 10 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

+ 2 pts

Increase risk 1 - 10 pts

Chart 5. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Nitrates and Nitrites

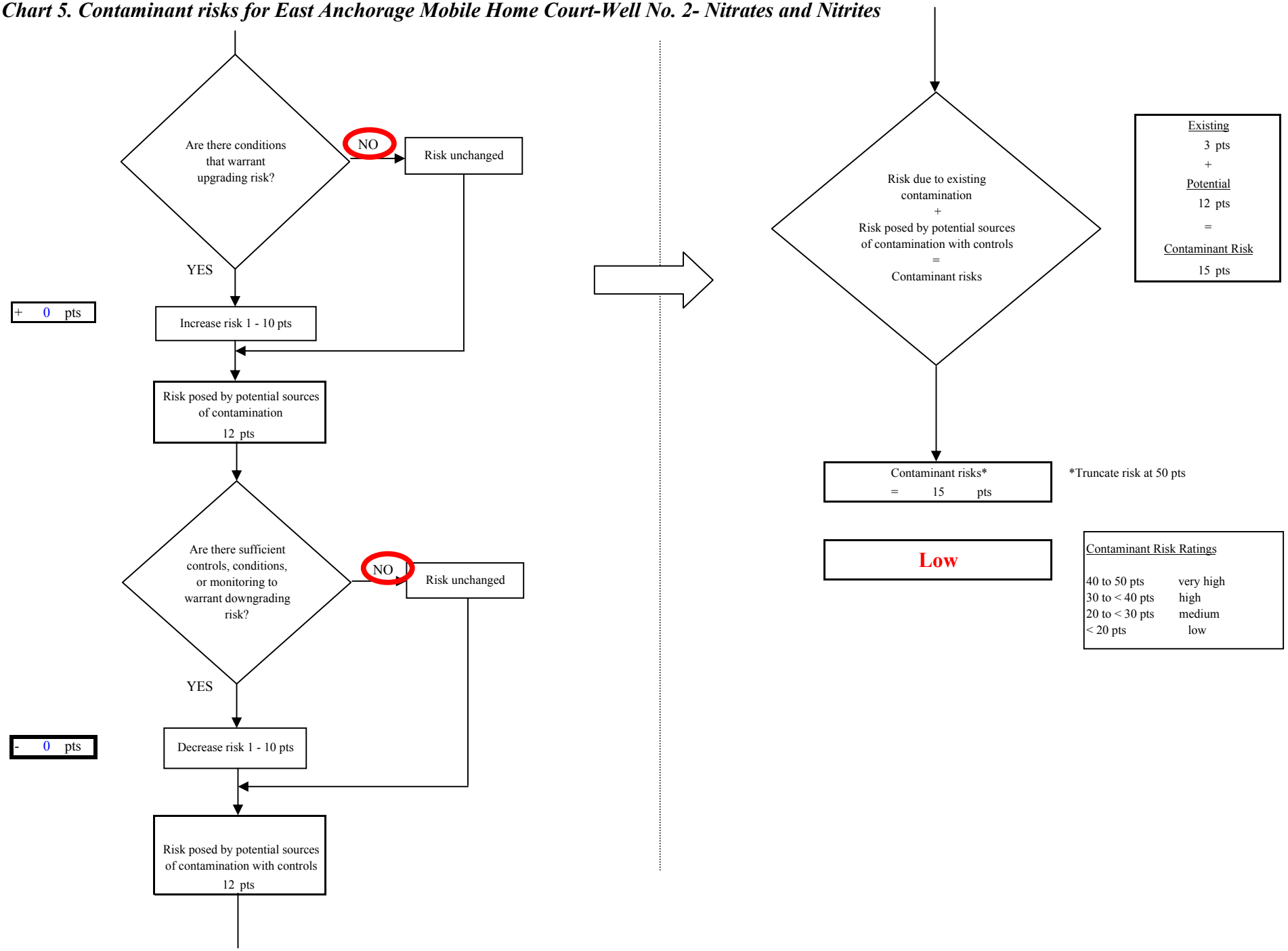


Chart 6. Vulnerability analysis for East Anchorage Mobile Home Court-Well No. 2- Nitrates and Nitrites

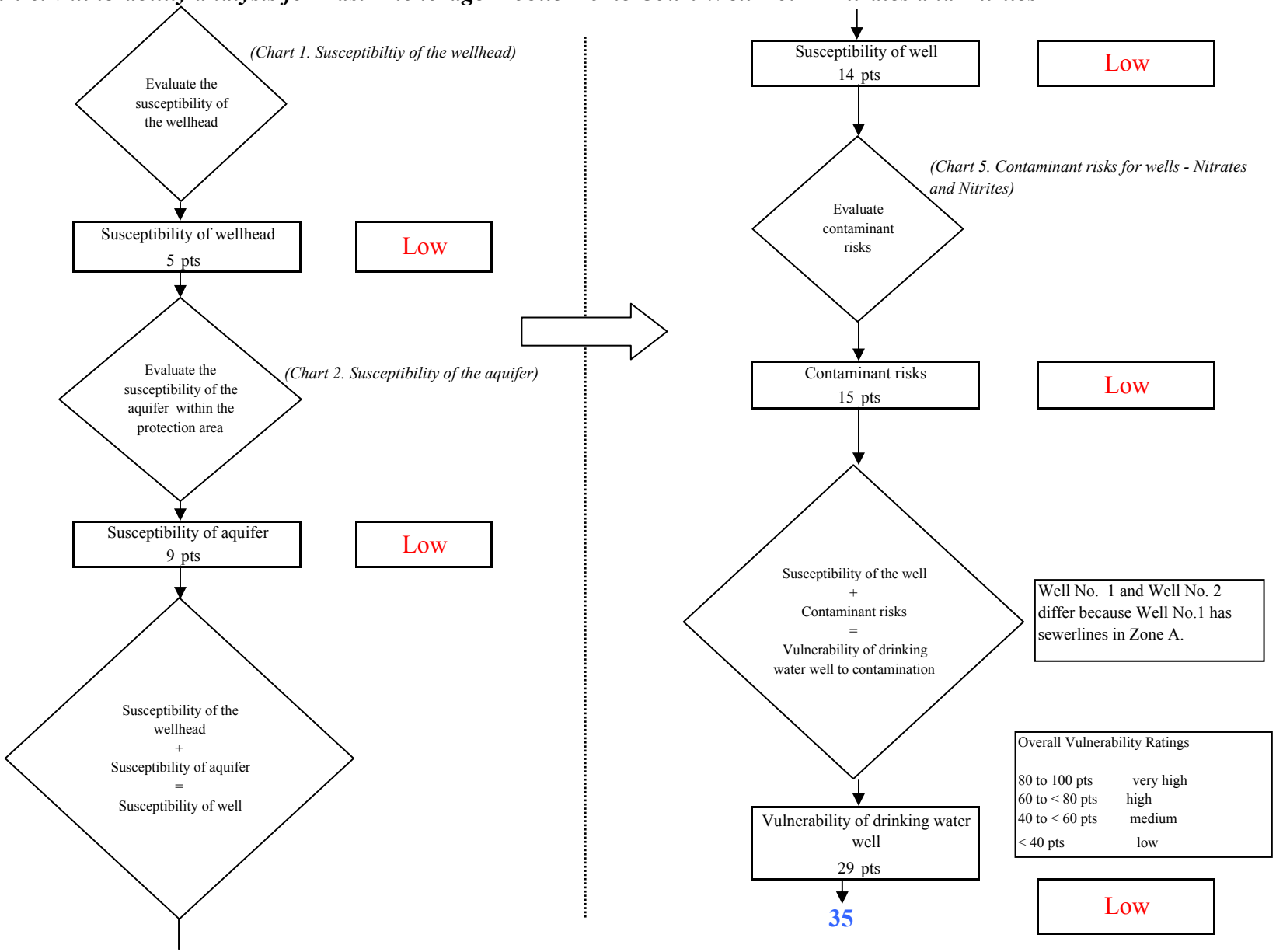


Chart 7. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Volatile Organic Chemicals

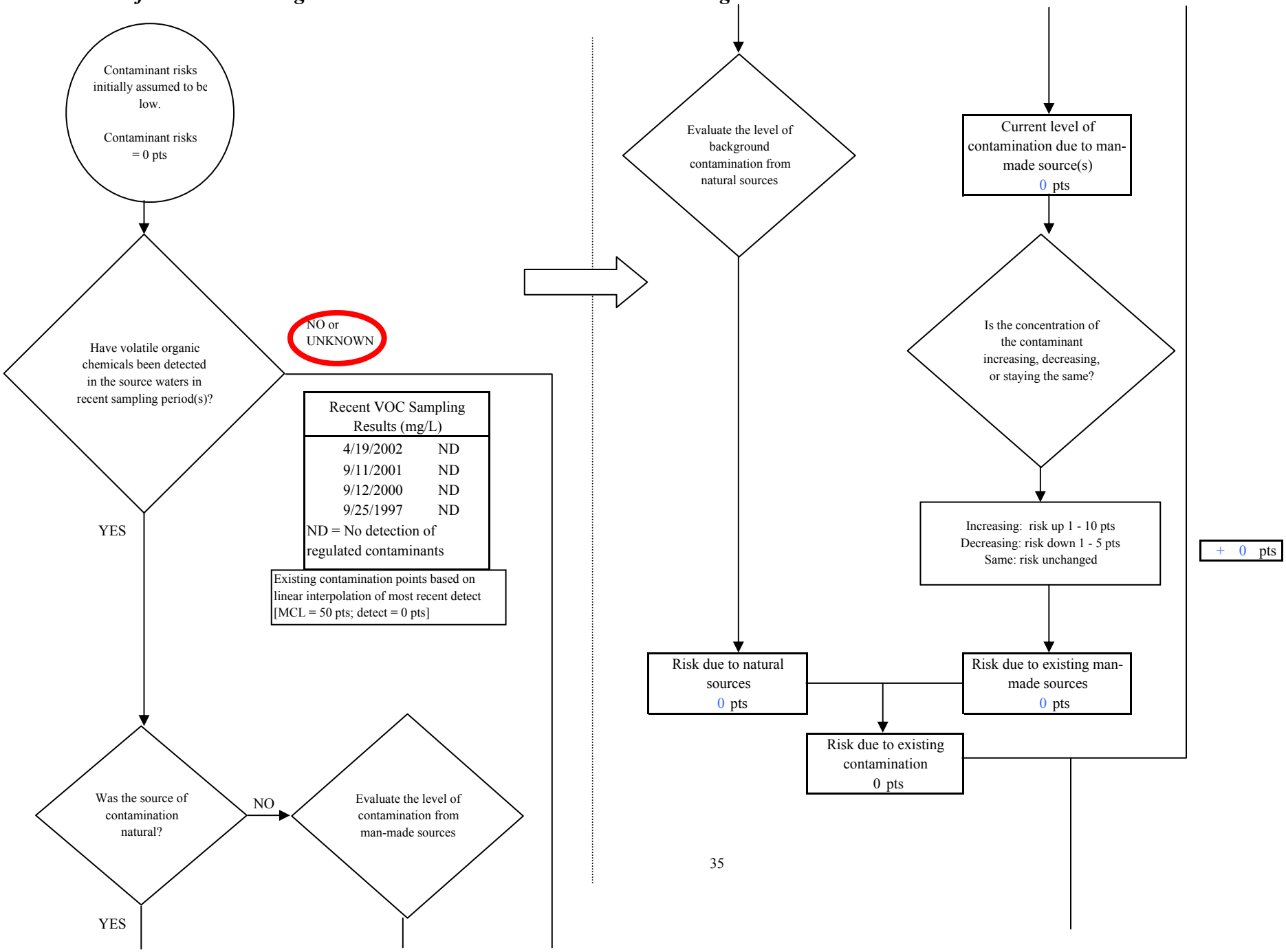


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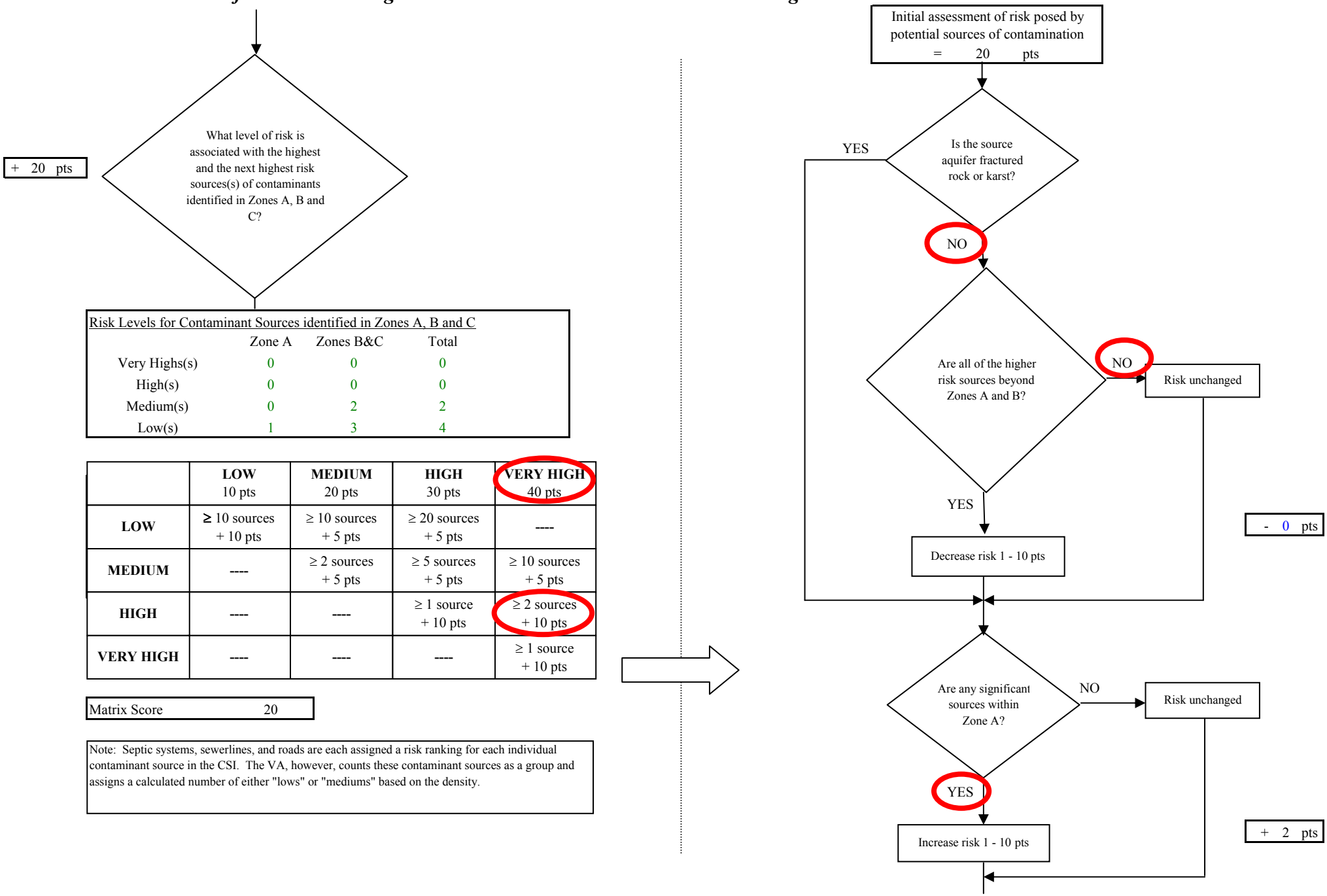
Chart 7. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Volatile Organic Chemicals



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

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	0	0	0
Medium(s)	0	2	2
Low(s)	1	3	4

	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 7. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Volatile Organic Chemicals

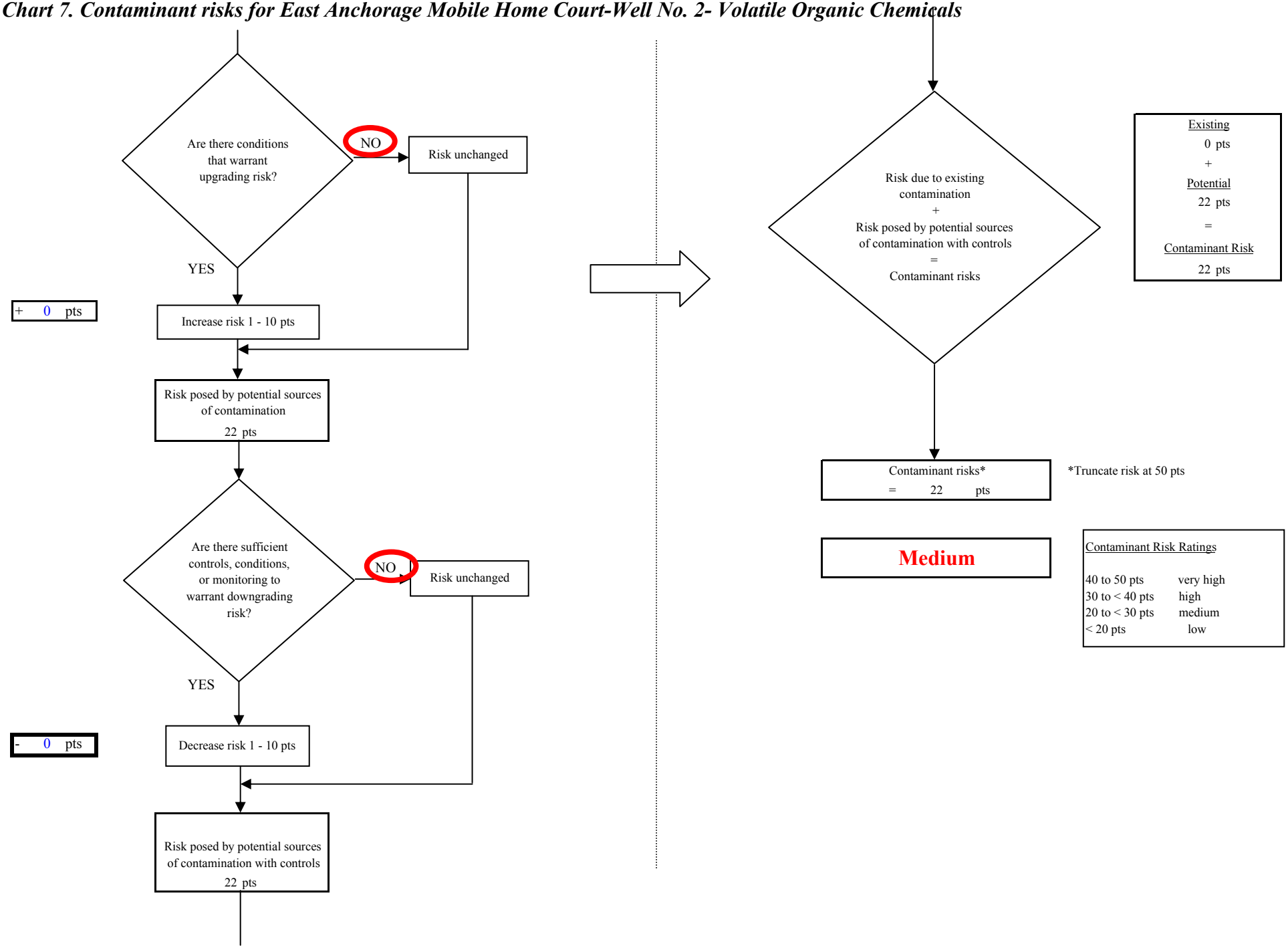


Chart 8. Vulnerability analysis for East Anchorage Mobile Home Court-Well No. 2- Volatile Organic Chemicals

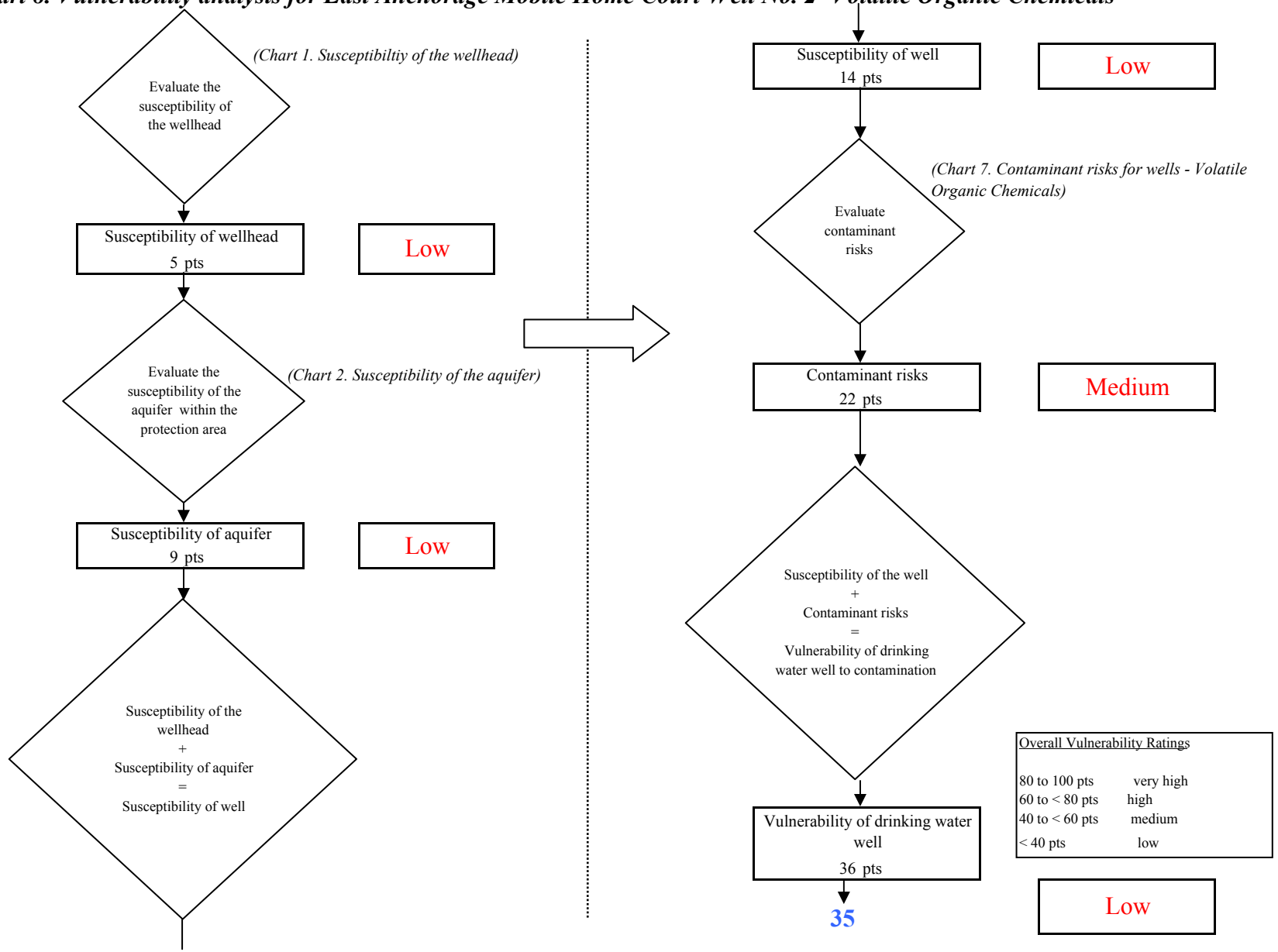


Chart 9. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Heavy Metals, Cyanide and Other Inorganic Chemicals

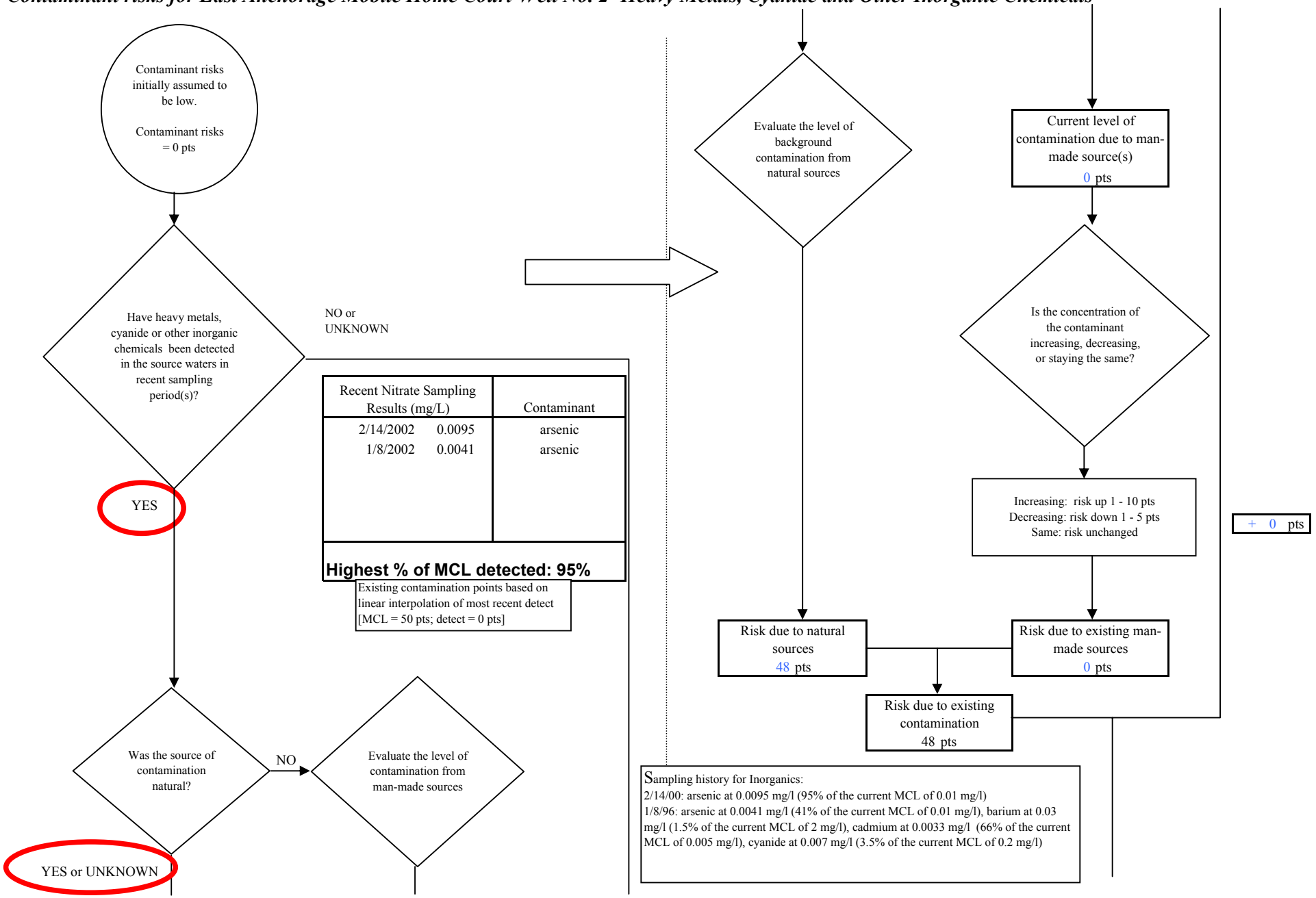


Chart 9. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Heavy Metals, Cyanide and Other Inorganic Chemicals

+ 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)	0	1	1
Low(s)	1	4	5

	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 → Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO → Risk unchanged

Roads

YES → Increase risk 1 - 10 pts

+ 2 pts

Chart 9. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Heavy Metals, Cyanide and Other Inorganic Chemicals

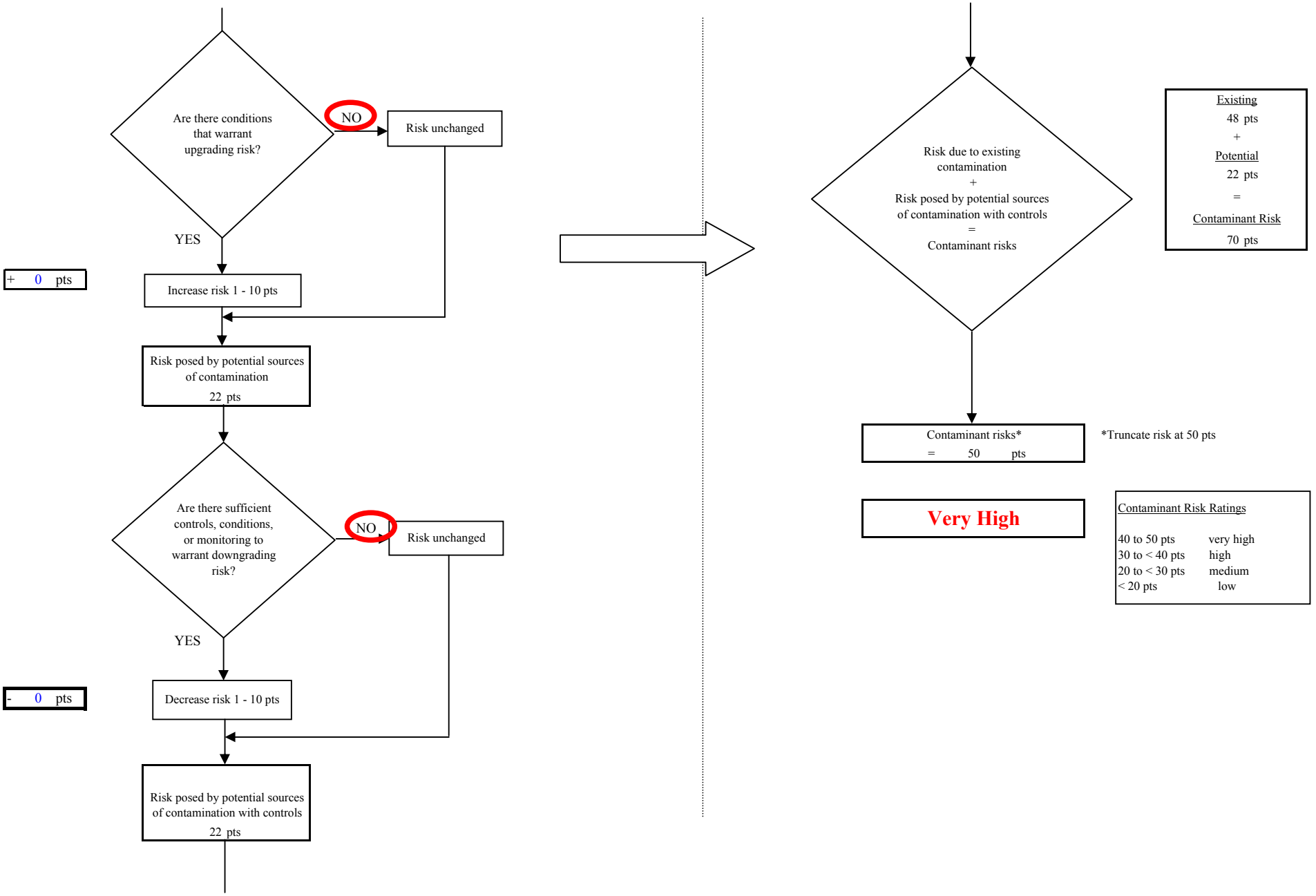


Chart 10. Vulnerability analysis for East Anchorage Mobile Home Court-Well No. 2- Heavy Metals, Cyanide and Other Inorganic Chemicals

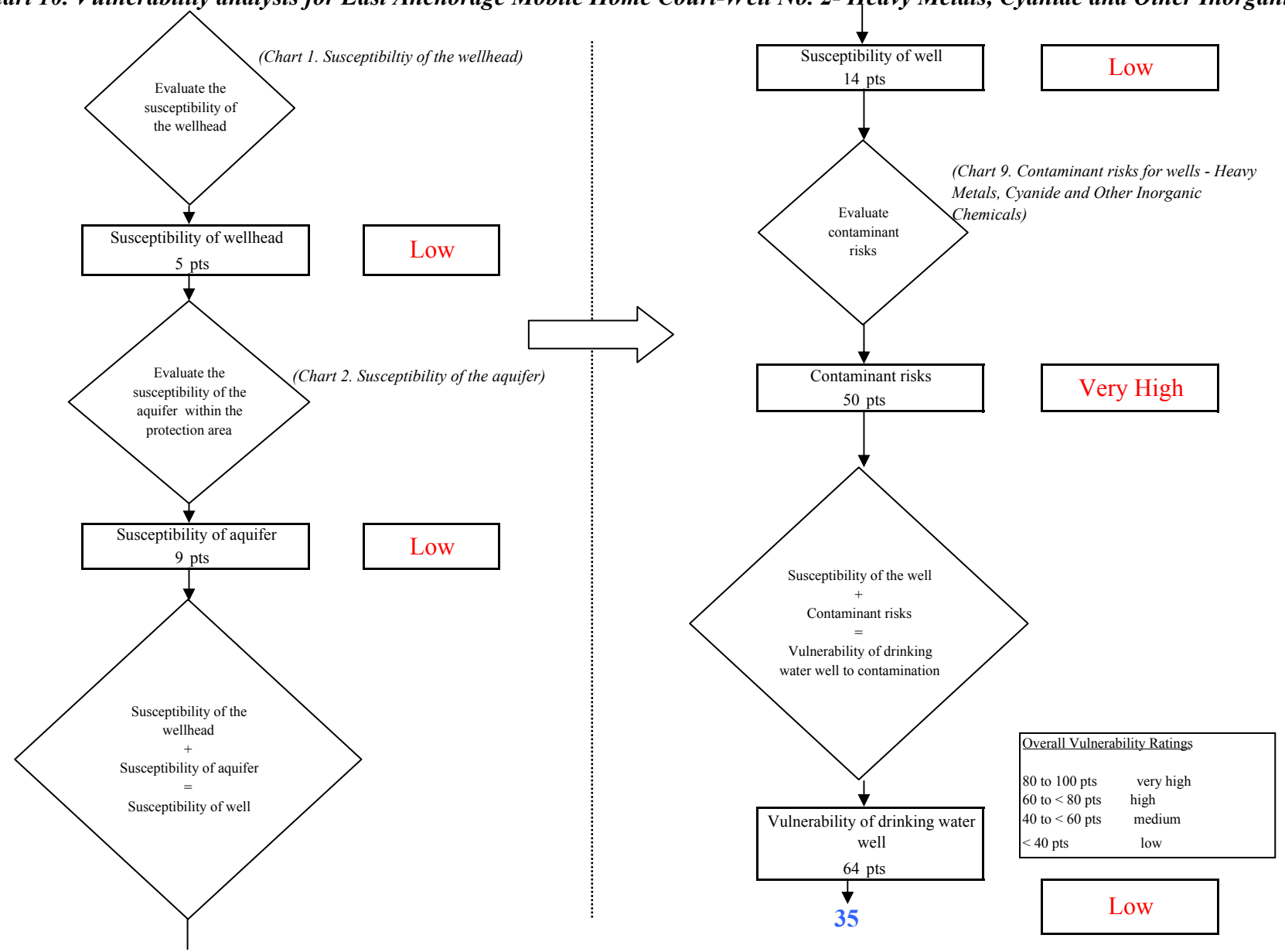


Chart 11. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Synthetic Organic Chemicals

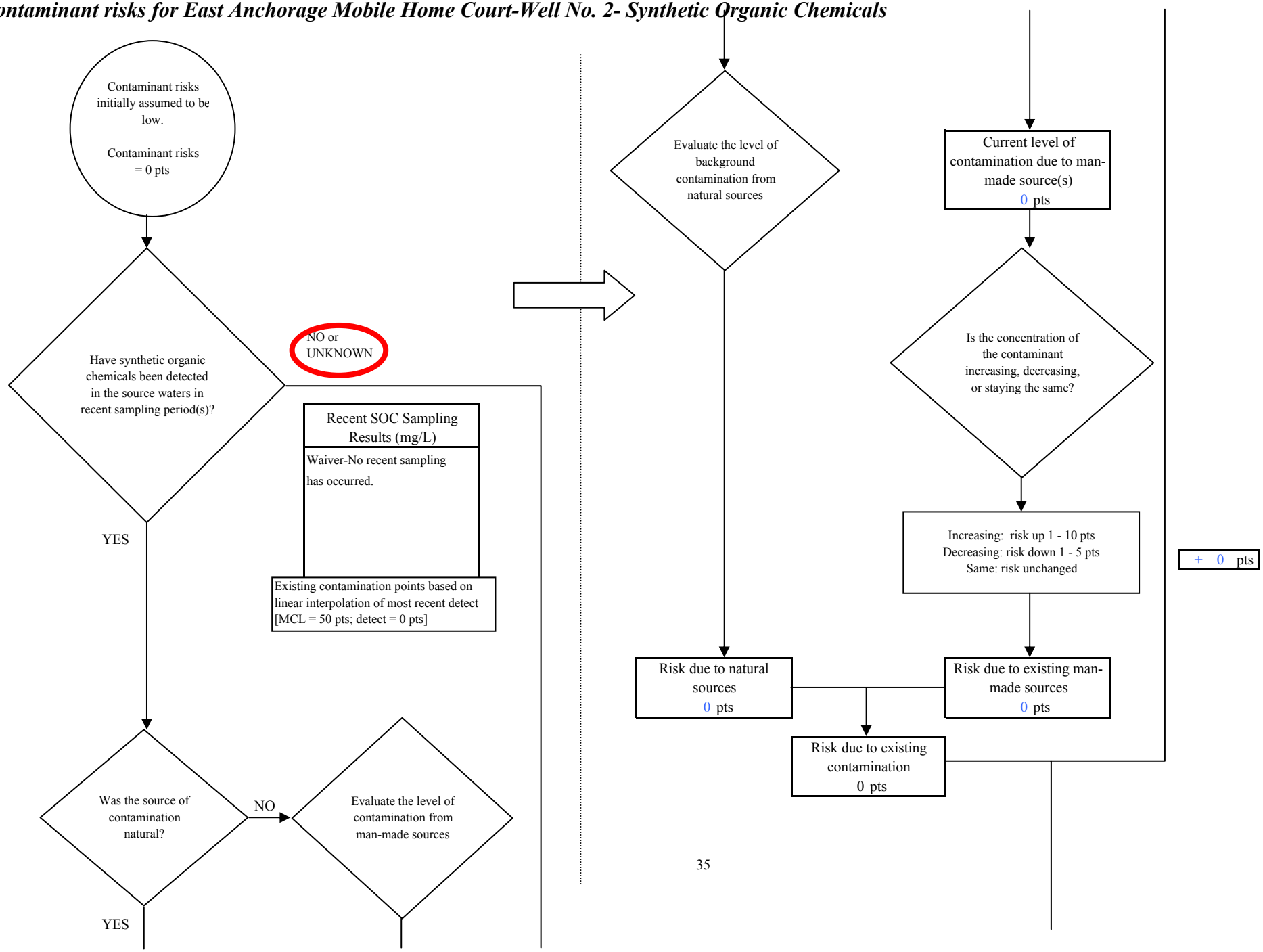


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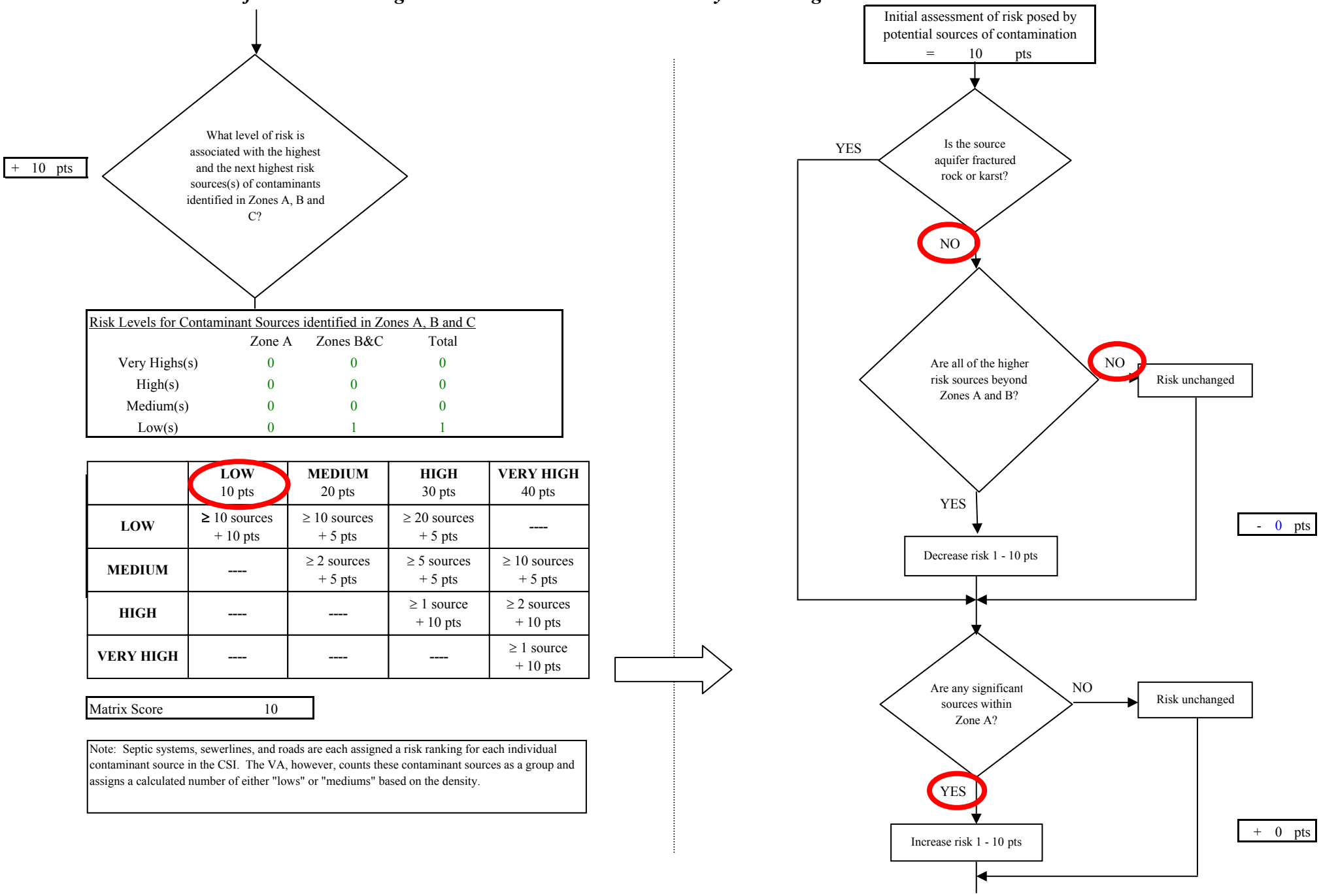
Chart 11. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Synthetic Organic Chemicals



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)	0	1	1

	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 10

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 East Anchorage Mobile Home Court-Well No. 2- Synthetic Organic Chemicals

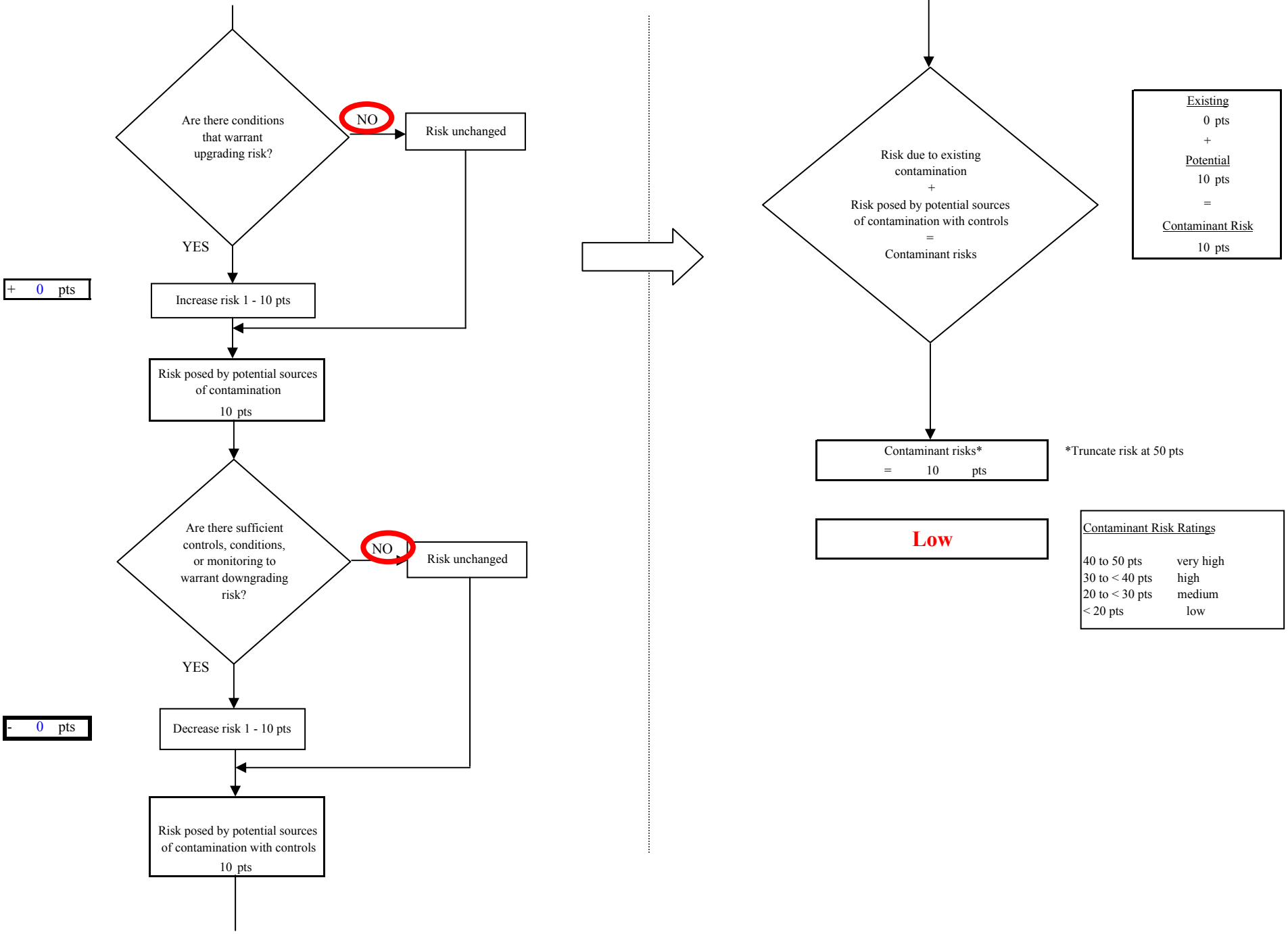


Chart 12. Vulnerability analysis for East Anchorage Mobile Home Court-Well No. 2- Synthetic Organic Chemicals

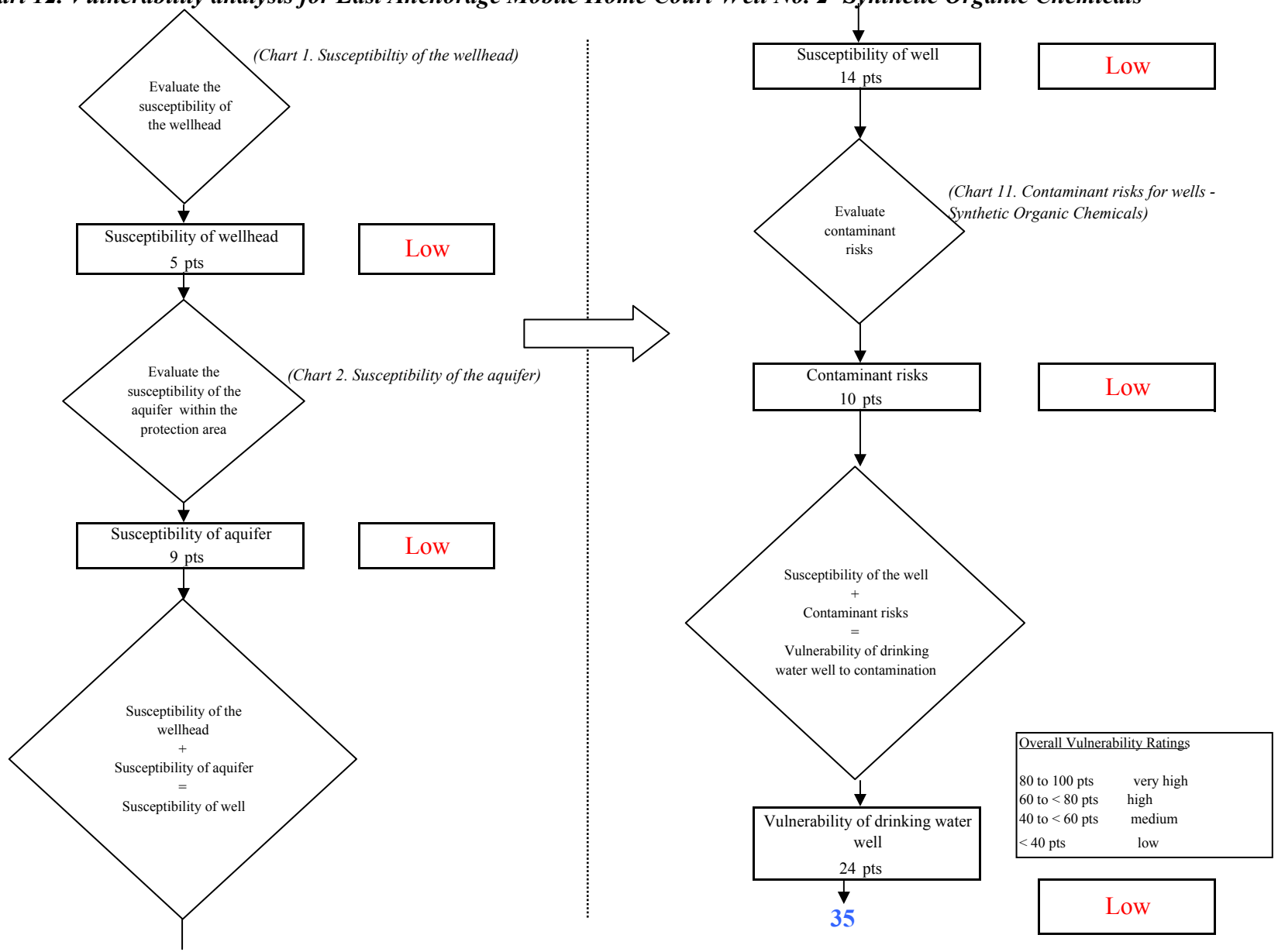


Chart 13. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Other Organic Chemicals

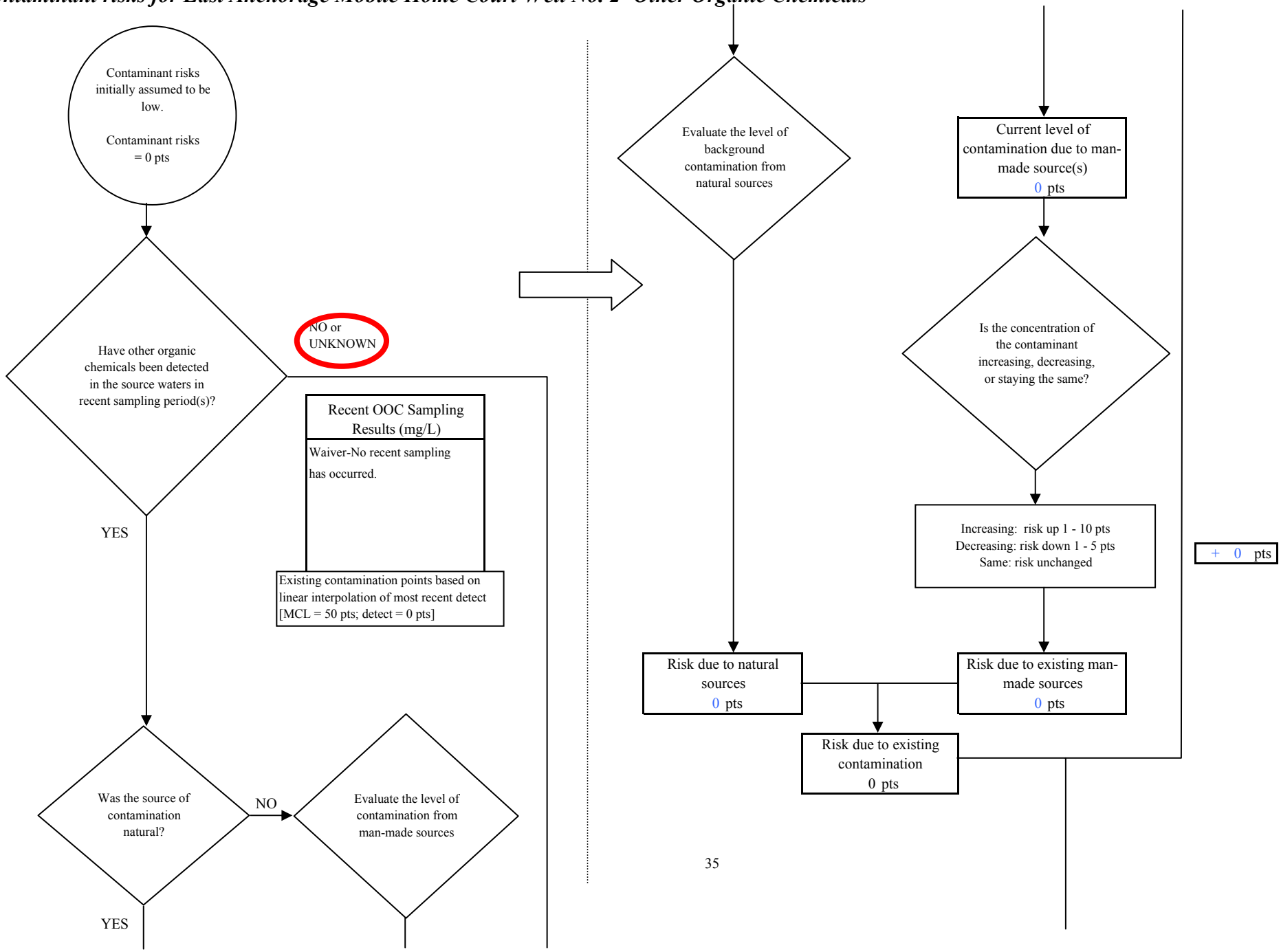


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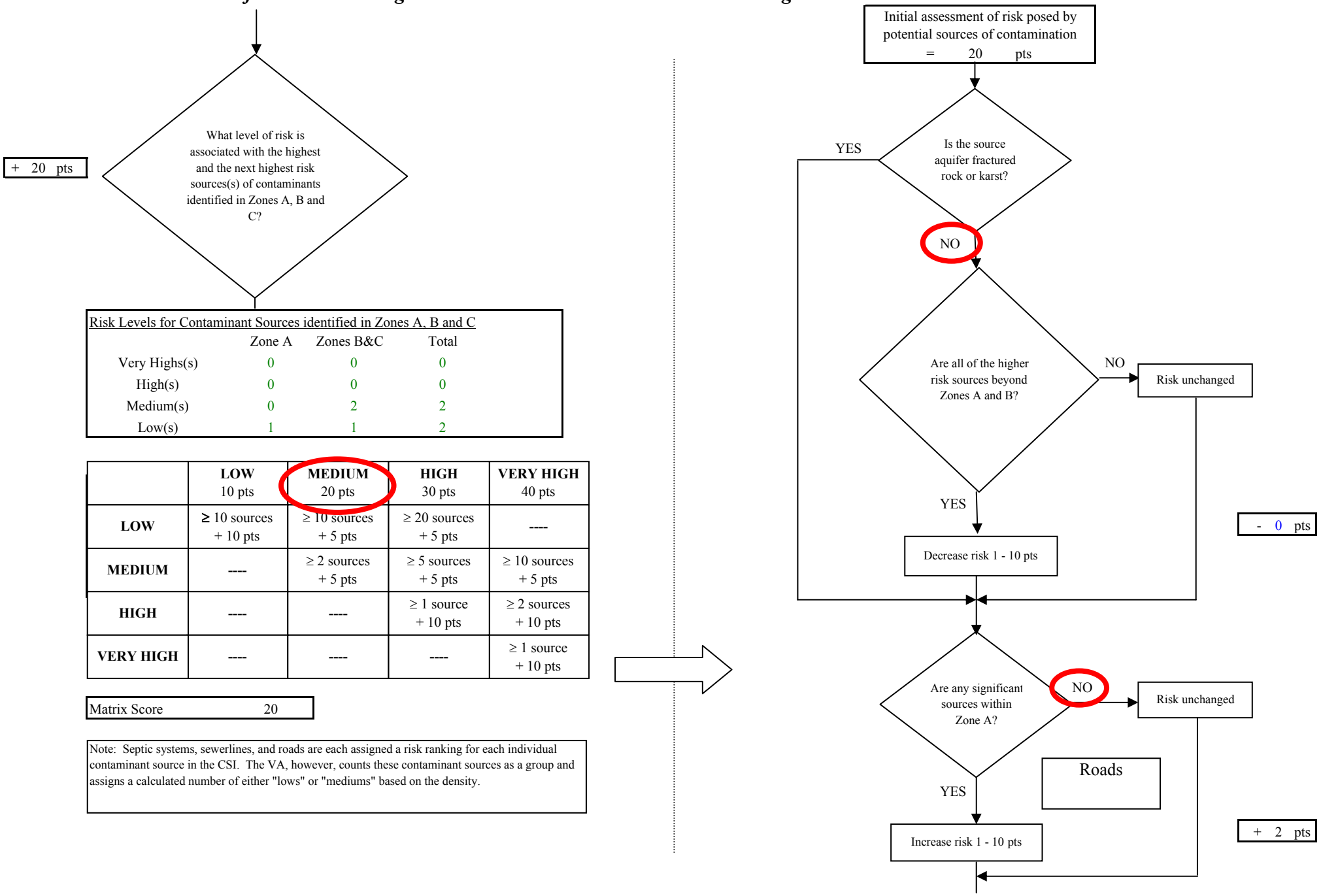
Chart 13. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Other Organic Chemicals



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

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	0	0	0
Medium(s)	0	2	2
Low(s)	1	1	2

	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 13. Contaminant risks for East Anchorage Mobile Home Court-Well No. 2- Other Organic Chemicals

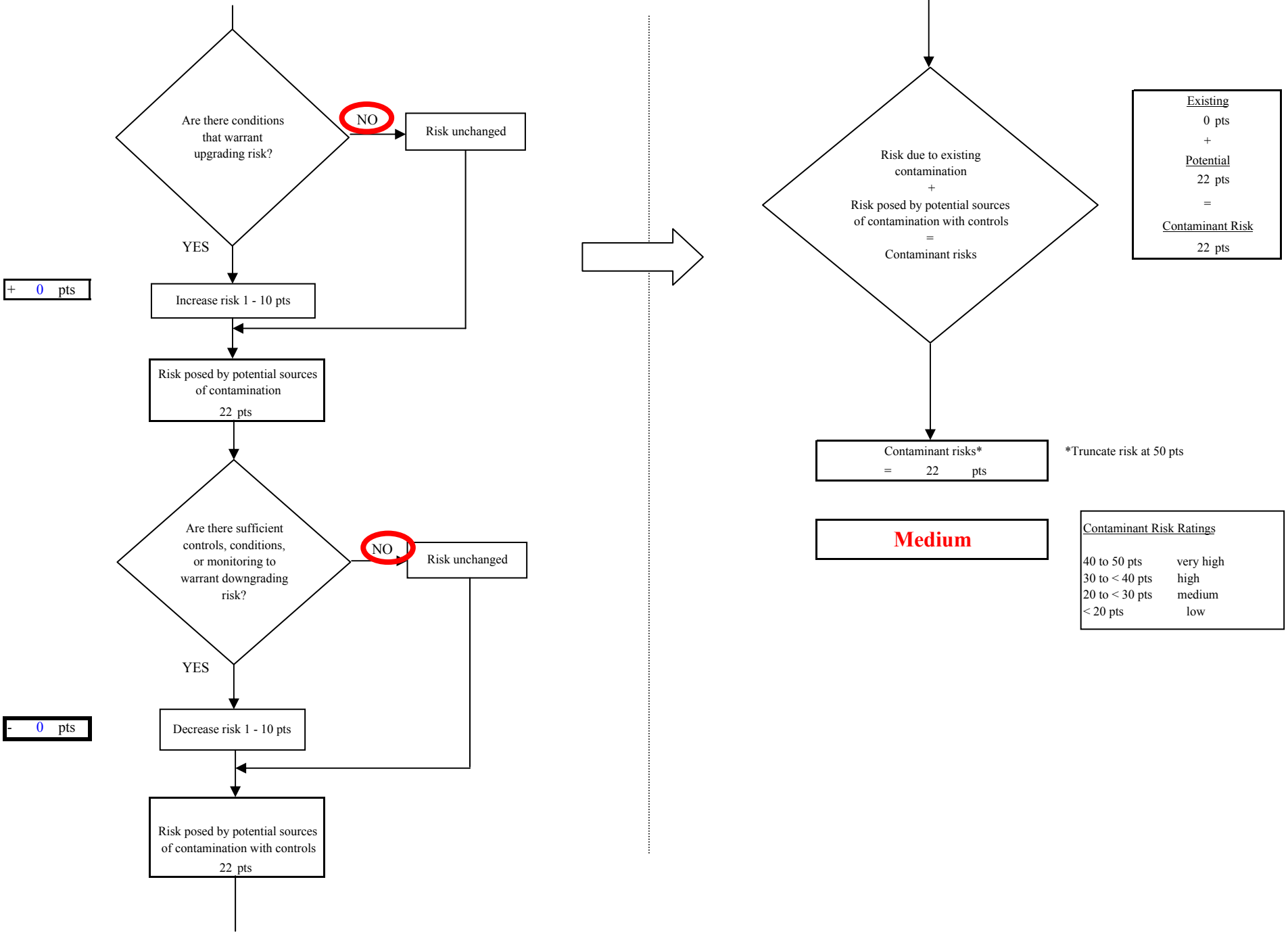


Chart 14. Vulnerability analysis for East Anchorage Mobile Home Court-Well No. 2- Other Organic Chemicals