

Source Water Assessment

A Hydrogeologic Susceptibility and
Vulnerability Assessment for
City of Soldotna- Well B
Drinking Water System,
Kenai area, Alaska
PWSID 241054.002

February 2004

DRINKING WATER PROTECTION PROGRAM REPORT 1435
Alaska Department of Environmental Conservation

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

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

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Source Water Assessment for City of Soldotna-Well B Source of Public Drinking Water, Kenai area, Alaska

Drinking Water Protection Program Alaska Department of Environmental Conservation

EXECUTIVE SUMMARY

The public water system for City of Soldotna is a Class A (Community) water system currently consisting of four wells. This report assesses Well B. The well is located on Birch Street, a few blocks west of Kenai Spur Highway. The wellhead received a susceptibility rating of **Low** and the aquifer received a susceptibility rating of **High**. Combining these two ratings produces a **Low** rating for the natural susceptibility of the well. Identified potential and current sources of contaminants for the City of Soldotna-Well B include: large capacity septic systems, roads, residential septic systems, residential area, motor vehicle water disposal wells, underground fuel tanks, recognized contaminated sites, leaking underground storage tanks, print shops, photo shops, gasoline stations, motor vehicle repair shops, various commercial and industrial activities. These identified potential and existing sources of contamination are considered as sources of bacteria and viruses, nitrates and/or nitrites, and volatile organic chemicals, inorganic chemicals, synthetic organic chemicals and other organic chemicals. Overall, the City of Soldotna-Well B received a vulnerability rating of **Medium** for bacteria/ viruses, synthetic organic chemicals and other organic chemicals and **High** for nitrates/nitrites, volatile organic chemicals and inorganic chemicals

CITY OF SOLDOTNA- PUBLIC DRINKING WATER SYSTEM

The City of Soldotna public water system (PWS) is a Class A (Community) water system. The system currently consists of four wells: Well A, B, C and F. The system is planning to add a fifth well, however the well is not active at this time. This report assesses Well B which is located on Birch Street, a few blocks west of the Kenai Spur Highway. (See Map 1 of Appendix A) The assessments of Well A, C, and F are located in Report No. 1440, No. 1439 and 1441 respectively.

The City of Soldotna is part of the Kenai Peninsula Borough, which is located directly south of the city of Anchorage (Please see the inset of Map 1 in Appendix A for location). The borough encompasses 25,600 square miles, of which only 15,700 square miles is land.

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

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

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

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

The most significant groundwater resources of the Kenai Lowlands are contained in Quaternary coarse-grained sands and gravels. Flood plain, river terrace and other alluvial deposits are common aquifer materials in the area, and are characterized by high rates of recharge, and large saturated thicknesses. Other favorable materials include proglacial lake and

associated river deposits and glacial outwash deposits consisting of meltwater sorted sand and gravel material. Unsorted glacial moraine and drift deposits generally have poor groundwater yields, as do discontinuous layers of confining clays and silt that are common throughout the unconsolidated materials. The relatively thicker sequence of unconsolidated sediments in the northern portions of the Kenai Lowlands locally hosts thicker, more extensive clay aquitards and multiple aquifers.

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

Records indicate that Well B is 163 feet below ground surface (bgs). Well logs in the area indicate that the well penetrates numerous clay layers. The well is completed in a confined aquifer consisting of sand and gravel. The static water level at the time of drilling (7/14/1967) is not known.

The Sanitary Survey (2002) indicates that the well is properly sealed. A properly installed sanitary seal may provide protection against contaminant from entering the source waters at the casing. The well is not located in a floodplain and the surface is sloped away from the wellhead. The well is properly grouted. Proper grouting provides added protection against contaminants traveling along the well casing and into source waters.

This system operates year round and serves up to 3500 residents and 500 non-residents through 1100 service connections.

CITY OF SOLDOTNA-WELL B DRINKING WATER PROTECTION AREA

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

The most probable area for contamination to reach the drinking water well is the area that contributes water to the well, the groundwater recharge area. This area is designated as the drinking water protection area (DWPA). Because releases of contaminants within the protection area are most likely to impact the drinking

water well, this area will serve as the focus for voluntary protection efforts.

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

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

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

Table 1. Definition of Zones

Zone	Definition
A	¼ the distance for the 2-yr. time-of-travel
B	Less than 2 years time-of-travel
C	Less than 5 years time-of-travel
D	Less than 10 years time-of-travel

The DWPA for the City of Soldotna-Well B was determined using an analytical calculation and includes Zone A, B, C, and D (See Map 1 of Appendix A).

INVENTORY OF POTENTIAL AND EXISTING CONTAMINANT SOURCES

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

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

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

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

RANKING OF CONTAMINANT RISKS

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

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

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

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

VULNERABILITY OF CITY OF SOLDOTNA-WELL B DRINKING WATER SYSTEM

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

- Natural susceptibility; and
- Contaminant risks.

Appendix D contains eight charts, which together form the ‘Vulnerability Analysis’ for a source water assessment for a public drinking water source. Chart 1 analyzes the ‘Susceptibility of the Wellhead’ to contamination by looking at the construction of the well and its surrounding area. Chart 2 analyzes the ‘Susceptibility of the 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 8 contain the Contaminant Risks and Vulnerability Analyses for nitrates and nitrites and volatile organic chemicals, respectively.

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

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

+

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

=

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

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

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

City of Soldotna-Well B’s well is completed in confined aquifer setting. Records indicate approximately 60 feet of clay is present. This clay confining layer may provide a protective barrier from the movement of contaminants in the subsurface. However, any wells penetrating the confining layer may provide a quick path for contaminants to enter the confining aquifer.

Table 2 shows the Susceptibility scores and ratings for the City of Soldotna-Well B.

Table 2. Susceptibility

	Score	Rating
Susceptibility of the Wellhead	0	Low
Susceptibility of the Aquifer	17	High
Natural Susceptibility	17	Low

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

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

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

Table 3. Contaminant Risks

Category	Score	Rating
Bacteria and Viruses	40	Very High
Nitrates and/or Nitrites	50	Very High
Volatile Organic Chemicals	50	Very High
Heavy Metals, Cyanide, and Other Inorganic Chemicals	50	Very High
Synthetic Organic Chemicals	25	Medium
Other Organic Chemicals	35	Medium

Finally, an overall vulnerability score is assigned for each water system by combining each of the contaminant risk scores with the natural susceptibility score:

Natural Susceptibility (0 – 50 points)

+

Contaminant Risks (0 – 50 points)

=

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

Again, rankings are assigned according to a point score:

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

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

Table 4. Overall Vulnerability

Category	Score	Rating
Bacteria and Viruses	55	Medium
Nitrates and Nitrites	65	High
Volatile Organic Chemicals	65	High
Heavy Metals, Cyanide, and Other Inorganic Chemicals	65	High
Synthetic Organic Chemicals	40	Medium
Other Organic Chemicals	50	Medium

Bacteria and Viruses

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

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

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

Nitrates and Nitrites

Roads, large capacity septic systems, residential area, residential septic systems, lawn and garden services, sewerlines, campgrounds and medical facilities represent the greatest risk to nitrates and nitrites for this source of public drinking water.

Nitrates are very mobile, moving at approximately the same rate as water. The sampling history for the City of Soldotna-Well B well indicates that nitrate concentrations have not been detected.

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

Volatile Organic Chemicals

Motor vehicle waste disposal, underground fuel tanks, petroleum bulk storage, recognized contaminated sites, printers, heavy equipment storage, car washes, automotive body shops, photography supply, roads, large capacity septic systems, residential septic systems and residential areas represent the greatest identified risk for volatile organic chemical contamination to the well.

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

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

Heavy Metals, Cyanide, and Other Inorganic Chemicals

Motor vehicle repair shops, motor vehicle waste disposal wells, recycling and waste reduction facilities, photographic supplies, car washes, auto body shops, waste disposal wells, roads, large capacity septic systems, underground fuel tanks, recognized contaminated sites, residential area, residential septic systems, present the greatest risk for inorganic chemicals to the well.

Samplings of inorganic chemicals have detected arsenic at levels below the maximum contaminant levels (MCLs). The MCL is the maximum level of contaminant that is allowed to exist in drinking water and still be consumed by humans without harmful health effects. The most recent detection of arsenic detected 0.006 mg/l which is 60% of the current MCL of 0.01mg/l. Prolonged exposure to levels exceeding the MCL can cause skin damage, problems with circulatory systems, and may create an increased risk of developing cancer (EPA, 2002). Though arsenic has been detected, recent data indicates that the concentrations are safe with respect to human health.

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

Synthetic Organic Chemicals

Lawn and garden services, recognized contaminated sites, residential septic systems, large capacity septic systems and residential area represent the greatest risk for inorganic chemicals to the well.

Sampling in 1995 did not detect synthetic organic chemicals. The system currently has an SOC waiver and is not required to sample.

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

Other Organic Chemicals

Auto body shops, heavy equipment storage, motor vehicle repair shops, motor vehicle waste disposal, petroleum bulk storage, cement manufacturing, soil borings, bus maintenance facility, roads, large capacity septic systems, residential area and residential septic systems represent the greatest risk for other organic chemicals to the well.

Sampling in 1995 did not detect other organic chemicals. The system currently has an OOC waiver and is not required to sample.

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

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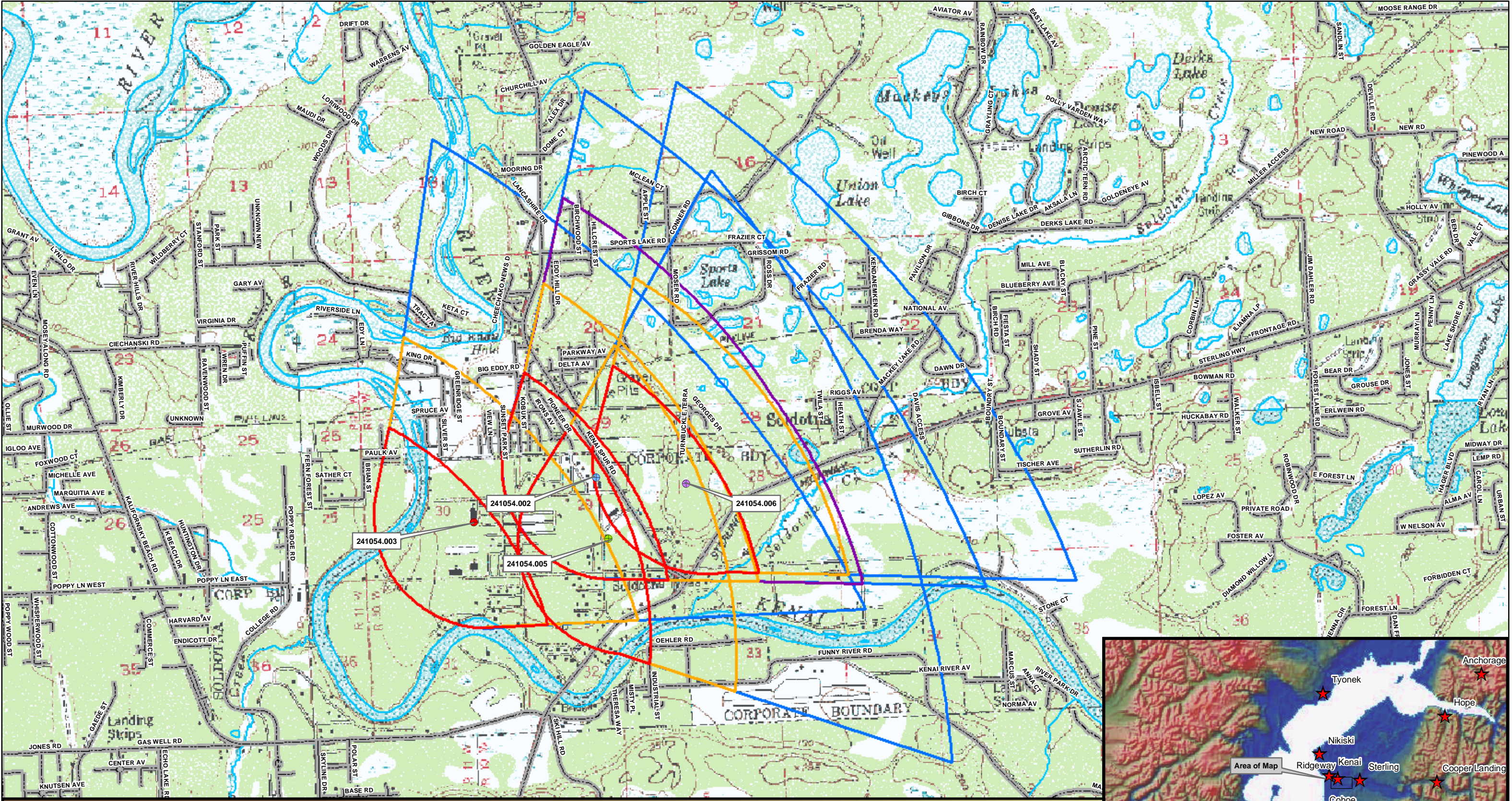
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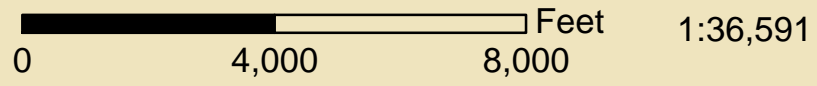
APPENDIX A

City of Soldotna-Well B Drinking Water Protection Area Location Map (Map 1)



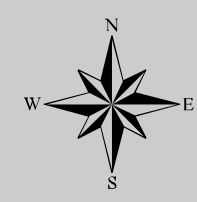
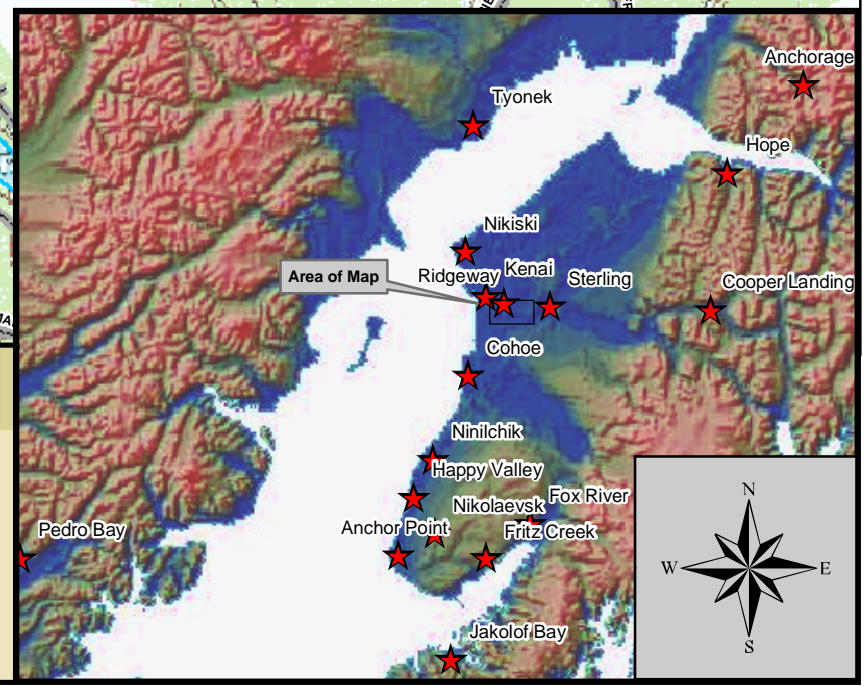
Map 1- City of Soldotna: Drinking Water Protection Areas

PWSID: 241054



Data Sources:
 Kenai Borough: Roads and parcels
 USGS-63,360 topo map and hillshade
 Potential Sources of Contamination: ADEC

Public Water Systems		Legend	
● 241054.002	● 241054.003	■ Zone A Protection Area	■ Kenai_land_use
● 241054.005	● 241054.006	■ Zone B Protection Area	— Roads
		■ Zone D Protection Area	— Rivers and Streams
		■ Zone C Protection Area	■ Potential Sources of Contamination



APPENDIX B

Contaminant Source Inventory and Risk Ranking for City of Soldotna-Well B (Tables 1-7)

Table 1

**Contaminant Source Inventory for
City of Soldotna-Well B**

PWSID 241054.002

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Map Number	Comments
Body shops (automotive)	C05	C05-1	A	3	44730 SPRUCE AVE
Body shops (automotive)	C05	C05-2	A	3	44710 SPRUCE AVE
Car washes with engine or undercarriage cleaning	C08	C08-1	A	2	224 KENAI AVE
Construction trade areas and materials	C09	C09-1	A	3	44482 FRONTIER AVE
Construction trade areas and materials	C09	C09-2	A	2	241 N ASPEN DR
Construction trade areas and materials	C09	C09-3	A	2	35581 KENAI SPUR HWY
Florists	C12	C12-1	A	2	35557 KENAI SPUR HWY
Gasoline stations (without repair shop)	C15	C15-1	A	2	35482 KENAI SPUR HWY
Hardware stores	C17	C17-1	A	2	267 N ASPEN DR
Hardware stores	C17	C17-2	A	2	35477 KENAI SPUR HWY # 2
Hardware stores	C17	C17-3	A	2	35440 KENAI SPUR HWY
Hardware stores	C17	C17-4	A	2	35220 KENAI SPUR HWY
Heavy equipment rental/storage	C18	C18-1	A	2	241 N ASPEN DR
Heavy equipment rental/storage	C18	C18-2	A	2	35338 KENAI SPUR HWY # 1
Heavy equipment rental/storage	C18	C18-3	A	2	224 KENAI AVE
Laboratories (chemical, soils, and research)	C20	C20-1	A	2	35186 KENAI SPUR HWY
Lawn and garden supplies/services	C23	C23-1	A	2	321 COLUMBINE ST
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	A	2	35105 KENAI SPUR HWY
Motor /motor vehicle repair shops	C31	C31-1	A	3	44730 SPRUCE AVE
Pet groomers	C34	C34-1	A	2	281 N ASPEN DR
Pet groomers	C34	C34-2	A	2	HC 1 BOX 95
Pet groomers	C34	C34-3	A	2	35324 KENAI SPUR HWY
Photography supplies/photo processing laboratories	C36	C36-1	A	2	173 E REDOUBT AVE
Printers, publishers, copiers	C37	C37-1	A	2	35251 KENAI SPUR HWY # A

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Map Number</i>	<i>Comments</i>
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	A	4	> 100 sewerlines in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19-24	A	4	5 large capacity septic in Zone A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1-3	A	4	3 motor vehicle waste disposal wells
Recycling and waste reduction facilities	D57	D57-1	A	3	36085 IRONS AVE
Seafood processing	N10	N10-1	A	2	35282 KENAI SPUR HWY
Residential Areas	R01	R01-1	A	4	14 residential acres in Zone A
Septic systems (serves one single-family home)	R02	R02-1-112	A	4	112 residential septic systems (R02) in Zone A
Tanks, diesel (underground)	T08	T08-1	A	2	35482 KENAI SPUR HWY
Tanks, gasoline (underground)	T12	T12-1	A	2	35482 KENAI SPUR HWY
Tanks, gasoline (underground)	T12	T12-2	A	2	35482 KENAI SPUR HWY
Tanks, heating oil, nonresidential (underground)	T16	T16-1	A	2	250 HOSPITAL PL
Tanks, heating oil, nonresidential (underground)	T16	T16-2	A	2	250 HOSPITAL PL
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-1	A	2	241 N ASPEN DR
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-2	A	2	241 N ASPEN DR
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-1	A	2	250 HOSPITAL PL. Central Peninsula General Hospital: Heating oil UST was removed. Fiberglass tank was in good condition when removed. Excavation was tested by a consultant and showed not contamination above matric level A remained. Site Closed.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-2	A	2	144 N Binkley Street. Kenai Vocational Center. Observed storage tank closure, diesel contamination discovered in both soil and groundwater. Floor drains of building possible contributing source of contamination. Priority: Medium
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-3	A	2	North Aspen Drive. Drum spill on city street. 1992 55 gallon drum was discovered in the right-of-way of Aspen St. Soil excavated and removed from site. Priority: Low
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-4	A	2	Mile 0.5 Kenai Spur Hwy- Coast Drilling. Pit Suspected to contain old engines, oil drilling parts, vehicles, construction wastes, and drilling mud in unknown amounts. Known contamination by PCB's, BTEX, lead and chlorinated solvents. Priority: High
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-1	A	2	35482 KENAI SPUR HWY-
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-1	A	2	139 PARK AVE:-During closure of a diesel & an unleaded gasoline tank in 9/89, contaminated soils due to spills were encountered. Some contaminated soil was processed into asphalt, remainder stored on site.
Petroleum product bulk station/terminals	X11	X11-1	A	2	305 W MARYDALE AVE

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Map Number</i>	<i>Comments</i>
Boat yards and marinas	X15	X15-1	A	2	255 N ASPEN DR
Highways and roads, paved (cement or asphalt)	X20	X20-1-50	A	4	50 roads in Zone A. Assumed to be paved.
Motor vehicle/general storage yards/facilities	X27	X27-1	A	2	35338 KENAI SPUR HWY # 8
Campgrounds and RV Parks	X35	X35-1	A	2	35546 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	2	232 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	A	2	133 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	A	2	138 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	A	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	A	2	35670 KENAI SPUR HWY # 101
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	A	2	35561 KENAI SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-15	A	2	35477 KENAI SPUR HWY # 201
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-16	A	2	35251 SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-17	A	2	35338 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-18	A	2	35338 KENAI SPUR HWY # 22
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-19	A	2	35338 KENAI SPUR HWY # 18
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	A	2	241 W KATMAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-20	A	2	176 N BIRCH ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-21	A	2	224 KENAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-22	A	2	35477 KENAI SPUR HWY # 214
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	2	206 W ROCKWELL AVE # 102

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	A	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	A	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	A	2	247 N FIREWEED ST # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	A	2	247 N FIREWEED ST # A
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	A	2	250 HOSPITAL PL
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	A	2	170 E CORRAL AVE # 4
Construction trade areas and materials	C09	C09-4	B	2	224 KENAI AVE
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	B	4	Approximately 90 sewerlines
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4-18	B	4	15 large capacity septic systems
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4-9	B	4	6 motor vehicle disposal systems
Cement manufacturing	I08	I08-1	B	2	224 KENAI AVE
Residential Areas	R01	R01-2	B	4	58 residential acres in Zone B.
Septic systems (serves one single-family home)	R02	R02-113-83	B	4	63 residential septic systems in Zone B
Tanks, diesel (underground)	T08	T08-2	B	4	43883 STERLING HWY
Tanks, diesel (underground)	T08	T08-3	B	4	43843 STERLING HWY
Closed tanks, diesel (underground)	T09	T09-1	B	3	36230 GIBSON AVE
Closed tanks, diesel (underground)	T09	T09-2	B	3	36230 GIBSON AVE
Closed tanks, diesel (underground)	T09	T09-3	B	4	127 SMITH WAY
Tanks, gasoline (underground)	T12	T12-3	B	4	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-4	B	4	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-5	B	4	43843 STERLING HWY
Closed tanks, gasoline (underground)	T13	T13-1	B	3	36230 GIBSON AVE
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-5	B	3	44990 Ridgeway Road-Alaska Road Builders. Numerous 55 gallon drums. Unknown type of muds dumped to ground along with asphalt tar like substances. Priority: High

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Map Number</i>	<i>Comments</i>
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-6	B	3	Kenai Spur Highway-Drum dump behind Alaska Truss. Possible PCB contamination. Priority: Unranked
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-7	B	2	Sterling Hwy. East of "Y"-Mary Miller-Soldotna Junction. Surface stains in gravel, leaks, spills, sumps and possible LUST's. Site of garage and heavy construction equipment storage yards. Priority: Medium
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-8	B	4	Frontier Ave off Ridgeway-Drilling mud reportedly dumped in septic system in 1987. Priority: Low
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-9	B	4	Turnbuckle Terrace Road-Drum Dump. 5 barrels with unknown contents. Priority: Unranked.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-2	B	3	36230 GIBSON AVE
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-3	B	4	43965 STERLING HWY
Soil borings	W08	W08-1	B	3	36230 GIBSON AVE
Bus maintenance facilities	X16	X16-1	B	3	36230 GIBSON AVE
Highways and roads, paved (cement or asphalt)	X20	X20-51-69	B	4	30 roads in Zone B
Motor vehicle/general storage yards/facilities	X27	X27-2	B	2	312 TYEE ST
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10	C	4	5 large capacity septic systems
Residential Areas	R01	R01-3	C	4	110 residential acres in Zone C
Septic systems (serves one single-family home)	R02	R02-84-255	C	4	72 residential septic systems in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-70-83	C	4	13 roads (X20)
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-25-28	D	4	3 large capacity septic systems in Zone D

Table 2

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Bacteria and Viruses*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	A	Medium	4	> 100 sewerlines in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19-24	A	High	4	5 large capacity septic in Zone A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1-3	A	Low	4	3 motor vehicle waste disposal wells
Seafood processing	N10	N10-1	A	Medium	2	35282 KENAI SPUR HWY
Residential Areas	R01	R01-1	A	Low	4	14 residential acres in Zone A
Septic systems (serves one single-family home)	R02	R02-1-112	A	Low	4	112 residential septic systems (R02) in Zone A
Highways and roads, paved (cement or asphalt)	X20	X20-1-50	A	Low	4	50 roads in Zone A. Assumed to be paved.
Campgrounds and RV Parks	X35	X35-1	A	Low	2	35546 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Medium	2	232 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	A	Medium	2	133 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	A	Medium	2	138 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	A	Medium	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	A	Medium	2	35670 KENAI SPUR HWY # 101
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	A	Medium	2	35561 KENAI SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-15	A	Medium	2	35477 KENAI SPUR HWY # 201
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-16	A	Medium	2	35251 SPUR HWY # B

Table 2 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Bacteria and Viruses*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-17	A	Medium	2	35338 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-18	A	Medium	2	35338 KENAI SPUR HWY # 22
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-19	A	Medium	2	35338 KENAI SPUR HWY # 18
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	A	Medium	2	241 W KATMAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-20	A	Medium	2	176 N BIRCH ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-21	A	Medium	2	224 KENAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-22	A	Medium	2	35477 KENAI SPUR HWY # 214
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Medium	2	206 W ROCKWELL AVE # 102
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	A	Medium	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	A	Medium	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	A	Medium	2	247 N FIREWEED ST # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	A	Medium	2	247 N FIREWEED ST # A
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	A	Medium	2	250 HOSPITAL PL
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	A	Medium	2	170 E CORRAL AVE # 4
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	B	Medium	4	Approximately 90 sewerlines

Table 2 (continued)

Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Bacteria and Viruses

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4-18	B	High	4	15 large capacity septic systems
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4-9	B	Low	4	6 motor vehicle disposal systems
Residential Areas	R01	R01-2	B	Low	4	58 residential acres in Zone B.
Septic systems (serves one single-family home)	R02	R02-113-83	B	Low	4	63 residential septic systems in Zone B
Soil borings	W08	W08-1	B	Medium	3	36230 GIBSON AVE
Highways and roads, paved (cement or asphalt)	X20	X20-51-69	B	Low	4	30 roads in Zone B

Table 3

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Nitrates/Nitrites*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Florists	C12	C12-1	A	Low	2	35557 KENAI SPUR HWY
Hardware stores	C17	C17-1	A	Low	2	267 N ASPEN DR
Hardware stores	C17	C17-2	A	Low	2	35477 KENAI SPUR HWY # 2
Hardware stores	C17	C17-3	A	Low	2	35440 KENAI SPUR HWY
Hardware stores	C17	C17-4	A	Low	2	35220 KENAI SPUR HWY
Lawn and garden supplies/services	C23	C23-1	A	Medium	2	321 COLUMBINE ST
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	A	Medium	4	> 100 sewerlines in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19-24	A	High	4	5 large capacity septic in Zone A
Seafood processing	N10	N10-1	A	Low	2	35282 KENAI SPUR HWY
Residential Areas	R01	R01-1	A	Low	4	14 residential acres in Zone A
Septic systems (serves one single-family home)	R02	R02-1-112	A	Low	4	112 residential septic systems (R02) in Zone A
Highways and roads, paved (cement or asphalt)	X20	X20-1-50	A	Low	4	50 roads in Zone A. Assumed to be paved.
Campgrounds and RV Parks	X35	X35-1	A	Low	2	35546 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	232 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	A	Low	2	133 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	A	Low	2	138 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	A	Low	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	A	Low	2	35670 KENAI SPUR HWY # 101

Table 3 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Nitrates/Nitrites*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	A	Low	2	35561 KENAI SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-15	A	Low	2	35477 KENAI SPUR HWY # 201
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-16	A	Low	2	35251 SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-17	A	Low	2	35338 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-18	A	Low	2	35338 KENAI SPUR HWY # 22
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-19	A	Low	2	35338 KENAI SPUR HWY # 18
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	A	Low	2	241 W KATMAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-20	A	Low	2	176 N BIRCH ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-21	A	Low	2	224 KENAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-22	A	Low	2	35477 KENAI SPUR HWY # 214
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Low	2	206 W ROCKWELL AVE # 102
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	A	Low	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	A	Low	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	A	Low	2	247 N FIREWEED ST # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	A	Low	2	247 N FIREWEED ST # A

Table 3 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Nitrates/Nitrites*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	A	Low	2	250 HOSPITAL PL
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	A	Low	2	170 E CORRAL AVE # 4
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	B	Medium	4	Approximately 90 sewerlines
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4-18	B	High	4	15 large capacity septic systems
Residential Areas	R01	R01-2	B	Low	4	58 residential acres in Zone B.
Septic systems (serves one single-family home)	R02	R02-113-83	B	Low	4	63 residential septic systems in Zone B
Soil borings	W08	W08-1	B	Medium	3	36230 GIBSON AVE
Highways and roads, paved (cement or asphalt)	X20	X20-51-69	B	Low	4	30 roads in Zone B
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10	C	High	4	5 large capacity septic systems
Residential Areas	R01	R01-3	C	Low	4	110 residential acres in Zone C
Septic systems (serves one single-family home)	R02	R02-84-255	C	Low	4	72 residential septic systems in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-70-83	C	Low	4	13 roads (X20)
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-25-28	D	High	4	3 large capacity septic systems in Zone D

Table 4

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Volatile Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Body shops (automotive)	C05	C05-1	A	Medium	3	44730 SPRUCE AVE
Body shops (automotive)	C05	C05-2	A	Medium	3	44710 SPRUCE AVE
Car washes with engine or undercarriage cleaning	C08	C08-1	A	High	2	224 KENAI AVE
Construction trade areas and materials	C09	C09-1	A	Low	3	44482 FRONTIER AVE
Construction trade areas and materials	C09	C09-2	A	Low	2	241 N ASPEN DR
Construction trade areas and materials	C09	C09-3	A	Low	2	35581 KENAI SPUR HWY
Gasoline stations (without repair shop)	C15	C15-1	A	High	2	35482 KENAI SPUR HWY
Hardware stores	C17	C17-1	A	Low	2	267 N ASPEN DR
Hardware stores	C17	C17-2	A	Low	2	35477 KENAI SPUR HWY # 2
Hardware stores	C17	C17-3	A	Low	2	35440 KENAI SPUR HWY
Hardware stores	C17	C17-4	A	Low	2	35220 KENAI SPUR HWY
Heavy equipment rental/storage	C18	C18-1	A	Medium	2	241 N ASPEN DR
Heavy equipment rental/storage	C18	C18-2	A	Medium	2	35338 KENAI SPUR HWY # 1
Heavy equipment rental/storage	C18	C18-3	A	Medium	2	224 KENAI AVE
Laboratories (chemical, soils, and research)	C20	C20-1	A	Low	2	35186 KENAI SPUR HWY
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	A	Medium	2	35105 KENAI SPUR HWY
Motor /motor vehicle repair shops	C31	C31-1	A	Medium	3	44730 SPRUCE AVE
Pet groomers	C34	C34-1	A	Low	2	281 N ASPEN DR
Pet groomers	C34	C34-2	A	Low	2	HC 1 BOX 95

Table 4 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Volatile Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Pet groomers	C34	C34-3	A	Low	2	35324 KENAI SPUR HWY
Photography supplies/photo processing laboratories	C36	C36-1	A	Medium	2	173 E REDOUBT AVE
Printers, publishers, copiers	C37	C37-1	A	High	2	35251 KENAI SPUR HWY # A
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	A	Low	4	> 100 sewerlines in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19-24	A	Low	4	5 large capacity septic in Zone A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1-3	A	High	4	3 motor vehicle waste disposal wells
Residential Areas	R01	R01-1	A	Low	4	14 residential acres in Zone A
Septic systems (serves one single-family home)	R02	R02-1-112	A	Low	4	112 residential septic systems (R02) in Zone A
Tanks, diesel (underground)	T08	T08-1	A	High	2	35482 KENAI SPUR HWY
Tanks, gasoline (underground)	T12	T12-1	A	High	2	35482 KENAI SPUR HWY
Tanks, gasoline (underground)	T12	T12-2	A	High	2	35482 KENAI SPUR HWY
Tanks, heating oil, nonresidential (underground)	T16	T16-1	A	Low	2	250 HOSPITAL PL
Tanks, heating oil, nonresidential (underground)	T16	T16-2	A	Low	2	250 HOSPITAL PL
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-1	A	Low	2	241 N ASPEN DR
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-2	A	Low	2	241 N ASPEN DR
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-1	A	Low	2	250 HOSPITAL PL. Central Peninsula General Hospital: Heating oil UST was removed. Fiberglass tank was in good condition when removed. Excavation was tested by a consultant and showed not contamination above matric level A remained. Site Closed.

Table 4 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Volatile Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-2	A	Low	2	144 N Binkley Street. Kenai Vocational Center. Observed storage tank closure, diesel contamination discovered in both soil and groundwater. Floor drains of building possible contributing source of contamination. Priority: Medium
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-3	A	Low	2	North Aspen Drive. Drum spill on city street. 1992 55 gallon drum was discovered in the right-of-way of Aspen St. Soil excavated and removed from site. Priority: Low
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-4	A	High	2	Mile 0.5 Kenai Spur Hwy- Coast Drilling. Pit Suspected to contain old engines, oil drilling parts, vehicles, construction wastes, and drilling mud in unknown amounts. Known contamination by PCB's, BTEX, lead and chlorinated solvents. Priority: High
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-1	A	Low	2	35482 KENAI SPUR HWY-
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-1	A	Low	2	139 PARK AVE:-During closure of a diesel & an unleaded gasoline tank in 9/89, contaminated soils due to spills were encountered. Some contaminated soil was processed into asphalt, remainder stored on site.
Petroleum product bulk station/terminals	X11	X11-1	A	Very High	2	305 W MARYDALE AVE
Boat yards and marinas	X15	X15-1	A	Low	2	255 N ASPEN DR
Highways and roads, paved (cement or asphalt)	X20	X20-1-50	A	Low	4	50 roads in Zone A. Assumed to be paved.
Motor vehicle/general storage yards/facilities	X27	X27-1	A	Low	2	35338 KENAI SPUR HWY # 8
Campgrounds and RV Parks	X35	X35-1	A	Low	2	35546 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	232 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	A	Low	2	133 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	A	Low	2	138 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	A	Low	2	102 E REDOUBT AVE

Table 4 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Volatile Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	A	Low	2	35670 KENAI SPUR HWY # 101
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	A	Low	2	35561 KENAI SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-15	A	Low	2	35477 KENAI SPUR HWY # 201
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-16	A	Low	2	35251 SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-17	A	Low	2	35338 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-18	A	Low	2	35338 KENAI SPUR HWY # 22
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-19	A	Low	2	35338 KENAI SPUR HWY # 18
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	A	Low	2	241 W KATMAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-20	A	Low	2	176 N BIRCH ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-21	A	Low	2	224 KENAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-22	A	Low	2	35477 KENAI SPUR HWY # 214
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Low	2	206 W ROCKWELL AVE # 102
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	A	Low	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	A	Low	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	A	Low	2	247 N FIREWEED ST # B

Table 4 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Volatile Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	A	Low	2	247 N FIREWEED ST # A
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	A	Low	2	250 HOSPITAL PL
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	A	Low	2	170 E CORRAL AVE # 4
Construction trade areas and materials	C09	C09-4	B	Low	2	224 KENAI AVE
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	B	Low	4	Approximately 90 sewerlines
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4-18	B	Low	4	15 large capacity septic systems
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4-9	B	High	4	6 motor vehicle disposal systems
Cement manufacturing	I08	I08-1	B	High	2	224 KENAI AVE
Residential Areas	R01	R01-2	B	Low	4	58 residential acres in Zone B.
Septic systems (serves one single-family home)	R02	R02-113-83	B	Low	4	63 residential septic systems in Zone B
Tanks, diesel (underground)	T08	T08-2	B	High	4	43883 STERLING HWY
Tanks, diesel (underground)	T08	T08-3	B	High	4	43843 STERLING HWY
Closed tanks, diesel (underground)	T09	T09-1	B	Medium	3	36230 GIBSON AVE
Closed tanks, diesel (underground)	T09	T09-2	B	Medium	3	36230 GIBSON AVE
Closed tanks, diesel (underground)	T09	T09-3	B	Medium	4	127 SMITH WAY
Tanks, gasoline (underground)	T12	T12-3	B	High	4	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-4	B	High	4	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-5	B	High	4	43843 STERLING HWY

Table 4 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Volatile Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Closed tanks, gasoline (underground)	T13	T13-1	B	Medium	3	36230 GIBSON AVE
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-5	B	High	3	44990 Ridgeway Road-Alaska Road Builders. Numerous 55 gallon drums. Unknown type of muds dumped to ground along with asphalt tar like substances. Priority: High
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-7	B	Medium	2	Sterling Hwy. East of "Y"-Mary Miller-Soldotna Junction. Surface stains in gravel, leaks, spills, sumps and possible LUST's. Site of garage and heavy construction equipment storage yards. Priority: Medium
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-9	B	Low	4	Turnbuckle Terrace Road-Drum Dump. 5 barrels with unknown contents. Priority: Unranked.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-2	B	Low	3	36230 GIBSON AVE
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-3	B	Low	4	43965 STERLING HWY
Soil borings	W08	W08-1	B	Medium	3	36230 GIBSON AVE
Bus maintenance facilities	X16	X16-1	B	Medium	3	36230 GIBSON AVE
Highways and roads, paved (cement or asphalt)	X20	X20-51-69	B	Low	4	30 roads in Zone B
Motor vehicle/general storage yards/facilities	X27	X27-2	B	Low	2	312 TYEE ST
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10	C	Low	4	5 large capacity septic systems
Residential Areas	R01	R01-3	C	Low	4	110 residential acres in Zone C
Septic systems (serves one single-family home)	R02	R02-84-255	C	Low	4	72 residential septic systems in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-70-83	C	Low	4	13 roads (X20)

Table 5

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Body shops (automotive)	C05	C05-1	A	Medium	3	44730 SPRUCE AVE
Body shops (automotive)	C05	C05-2	A	Medium	3	44710 SPRUCE AVE
Car washes with engine or undercarriage cleaning	C08	C08-1	A	Medium	2	224 KENAI AVE
Construction trade areas and materials	C09	C09-1	A	Low	3	44482 FRONTIER AVE
Construction trade areas and materials	C09	C09-2	A	Low	2	241 N ASPEN DR
Construction trade areas and materials	C09	C09-3	A	Low	2	35581 KENAI SPUR HWY
Florists	C12	C12-1	A	Low	2	35557 KENAI SPUR HWY
Gasoline stations (without repair shop)	C15	C15-1	A	Low	2	35482 KENAI SPUR HWY
Hardware stores	C17	C17-1	A	Low	2	267 N ASPEN DR
Hardware stores	C17	C17-2	A	Low	2	35477 KENAI SPUR HWY # 2
Hardware stores	C17	C17-3	A	Low	2	35440 KENAI SPUR HWY
Hardware stores	C17	C17-4	A	Low	2	35220 KENAI SPUR HWY
Heavy equipment rental/storage	C18	C18-1	A	Low	2	241 N ASPEN DR
Heavy equipment rental/storage	C18	C18-2	A	Low	2	35338 KENAI SPUR HWY # 1
Heavy equipment rental/storage	C18	C18-3	A	Low	2	224 KENAI AVE
Laboratories (chemical, soils, and research)	C20	C20-1	A	Low	2	35186 KENAI SPUR HWY
Lawn and garden supplies/services	C23	C23-1	A	Low	2	321 COLUMBINE ST
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	A	Low	2	35105 KENAI SPUR HWY
Motor /motor vehicle repair shops	C31	C31-1	A	Medium	3	44730 SPRUCE AVE

Table 5 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Photography supplies/photo processing laboratories	C36	C36-1	A	Medium	2	173 E REDOUBT AVE
Printers, publishers, copiers	C37	C37-1	A	Medium	2	35251 KENAI SPUR HWY # A
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	A	Low	4	> 100 sewerlines in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19-24	A	Low	4	5 large capacity septic in Zone A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1-3	A	High	4	3 motor vehicle waste disposal wells
Recycling and waste reduction facilities	D57	D57-1	A	High	3	36085 IRONS AVE
Residential Areas	R01	R01-1	A	Low	4	14 residential acres in Zone A
Septic systems (serves one single-family home)	R02	R02-1-112	A	Low	4	112 residential septic systems (R02) in Zone A
Tanks, gasoline (underground)	T12	T12-1	A	Medium	2	35482 KENAI SPUR HWY
Tanks, gasoline (underground)	T12	T12-2	A	Medium	2	35482 KENAI SPUR HWY
Tanks, heating oil, nonresidential (underground)	T16	T16-1	A	Low	2	250 HOSPITAL PL
Tanks, heating oil, nonresidential (underground)	T16	T16-2	A	Low	2	250 HOSPITAL PL
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-1	A	Low	2	241 N ASPEN DR
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-2	A	Low	2	241 N ASPEN DR
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-4	A	High	2	Mile 0.5 Kenai Spur Hwy- Coast Drilling. Pit Suspected to contain old engines, oil drilling parts, vehicles, construction wastes, and drilling mud in unknown amounts. Known contamination by PCB's, BTEX, lead and chlorinated solvents. Priority: High
Petroleum product bulk station/terminals	X11	X11-1	A	Low	2	305 W MARYDALE AVE
Boat yards and marinas	X15	X15-1	A	Low	2	255 N ASPEN DR

Table 5 (continued)

Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B

PWSID 241054.002

Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Highways and roads, paved (cement or asphalt)	X20	X20-1-50	A	Low	4	50 roads in Zone A. Assumed to be paved.
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	232 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	A	Low	2	133 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	A	Low	2	138 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	A	Low	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	A	Low	2	35670 KENAI SPUR HWY # 101
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	A	Low	2	35561 KENAI SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-15	A	Low	2	35477 KENAI SPUR HWY # 201
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-16	A	Low	2	35251 SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-17	A	Low	2	35338 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-18	A	Low	2	35338 KENAI SPUR HWY # 22
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-19	A	Low	2	35338 KENAI SPUR HWY # 18
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	A	Low	2	241 W KATMAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-20	A	Low	2	176 N BIRCH ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-21	A	Low	2	224 KENAI AVE

Table 5 (continued)

Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B

PWSID 241054.002

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	X40-22	A	Low	2	35477 KENAI SPUR HWY # 214
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Low	2	206 W ROCKWELL AVE # 102
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	A	Low	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	A	Low	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	A	Low	2	247 N FIREWEED ST # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	A	Low	2	247 N FIREWEED ST # A
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	A	Low	2	250 HOSPITAL PL
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	A	Low	2	170 E CORRAL AVE # 4
Construction trade areas and materials	C09	C09-4	B	Low	2	224 KENAI AVE
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	B	Low	4	Approximately 90 sewerlines
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4-18	B	Low	4	15 large capacity septic systems
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4-9	B	High	4	6 motor vehicle disposal systems
Cement manufacturing	I08	I08-1	B	Medium	2	224 KENAI AVE
Residential Areas	R01	R01-2	B	Low	4	58 residential acres in Zone B.
Septic systems (serves one single-family home)	R02	R02-113-83	B	Low	4	63 residential septic systems in Zone B
Tanks, gasoline (underground)	T12	T12-3	B	Medium	4	43883 STERLING HWY

Table 5 (continued)

Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B

PWSID 241054.002

Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Tanks, gasoline (underground)	T12	T12-4	B	Medium	4	43883 STERLING HWY
Tanks, gasoline (underground)	T12	T12-5	B	Medium	4	43843 STERLING HWY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-8	B	Low	4	Frontier Ave off Ridgeway-Drilling mud reportedly dumped in septic system in 1987. Priority: Low
Soil borings	W08	W08-1	B	Medium	3	36230 GIBSON AVE
Bus maintenance facilities	X16	X16-1	B	Low	3	36230 GIBSON AVE
Highways and roads, paved (cement or asphalt)	X20	X20-51-69	B	Low	4	30 roads in Zone B
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10	C	Low	4	5 large capacity septic systems
Residential Areas	R01	R01-3	C	Low	4	110 residential acres in Zone C
Septic systems (serves one single-family home)	R02	R02-84-255	C	Low	4	72 residential septic systems in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-70-83	C	Low	4	13 roads (X20)

Table 6

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Synthetic Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Lawn and garden supplies/services	C23	C23-1	A	Medium	2	321 COLUMBINE ST
Pet groomers	C34	C34-1	A	Low	2	281 N ASPEN DR
Pet groomers	C34	C34-2	A	Low	2	HC 1 BOX 95
Pet groomers	C34	C34-3	A	Low	2	35324 KENAI SPUR HWY
Photography supplies/photo processing laboratories	C36	C36-1	A	Low	2	173 E REDOUBT AVE
Printers, publishers, copiers	C37	C37-1	A	Low	2	35251 KENAI SPUR HWY # A
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	A	Low	4	> 100 sewerlines in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19-24	A	Low	4	5 large capacity septic in Zone A
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1-3	A	Low	4	3 motor vehicle waste disposal wells
Residential Areas	R01	R01-1	A	Low	4	14 residential acres in Zone A
Septic systems (serves one single-family home)	R02	R02-1-112	A	Low	4	112 residential septic systems (R02) in Zone A
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-4	A	High	2	Mile 0.5 Kenai Spur Hwy- Coast Drilling. Pit Suspected to contain old engines, oil drilling parts, vehicles, construction wastes, and drilling mud in unknown amounts. Known contamination by PCB's, BTEX, lead and chlorinated solvents. Priority: High
Petroleum product bulk station/terminals	X11	X11-1	A	Low	2	305 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-1	A	Low	2	232 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-10	A	Low	2	133 W MARYDALE AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-11	A	Low	2	138 W MARYDALE AVE

Table 6 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Synthetic Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-12	A	Low	2	102 E REDOUBT AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-13	A	Low	2	35670 KENAI SPUR HWY # 101
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-14	A	Low	2	35561 KENAI SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-15	A	Low	2	35477 KENAI SPUR HWY # 201
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-16	A	Low	2	35251 SPUR HWY # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-17	A	Low	2	35338 KENAI SPUR HWY
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-18	A	Low	2	35338 KENAI SPUR HWY # 22
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-19	A	Low	2	35338 KENAI SPUR HWY # 18
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-2	A	Low	2	241 W KATMAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-20	A	Low	2	176 N BIRCH ST
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-21	A	Low	2	224 KENAI AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-22	A	Low	2	35477 KENAI SPUR HWY # 214
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-3	A	Low	2	206 W ROCKWELL AVE # 102
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-4	A	Low	2	206 W ROCKWELL AVE
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-5	A	Low	2	206 W ROCKWELL AVE

Table 6 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Synthetic Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-6	A	Low	2	247 N FIREWEED ST # B
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-7	A	Low	2	247 N FIREWEED ST # A
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-8	A	Low	2	250 HOSPITAL PL
Medical/veterinary facilities (doctor or dentist offices, hospitals, nursing homes)	X40	X40-9	A	Low	2	170 E CORRAL AVE # 4
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	B	Low	4	Approximately 90 sewerlines
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4-18	B	Low	4	15 large capacity septic systems
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4-9	B	Low	4	6 motor vehicle disposal systems
Residential Areas	R01	R01-2	B	Low	4	58 residential acres in Zone B.
Septic systems (serves one single-family home)	R02	R02-113-83	B	Low	4	63 residential septic systems in Zone B
Soil borings	W08	W08-1	B	Medium	3	36230 GIBSON AVE
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10	C	Low	4	5 large capacity septic systems
Residential Areas	R01	R01-3	C	Low	4	110 residential acres in Zone C
Septic systems (serves one single-family home)	R02	R02-84-255	C	Low	4	72 residential septic systems in Zone C

Table 7

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Other Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Body shops (automotive)	C05	C05-1	A	Medium	3	44730 SPRUCE AVE
Body shops (automotive)	C05	C05-2	A	Medium	3	44710 SPRUCE AVE
Car washes with engine or undercarriage cleaning	C08	C08-1	A	Medium	2	224 KENAI AVE
Construction trade areas and materials	C09	C09-1	A	Low	3	44482 FRONTIER AVE
Construction trade areas and materials	C09	C09-2	A	Low	2	241 N ASPEN DR
Construction trade areas and materials	C09	C09-3	A	Low	2	35581 KENAI SPUR HWY
Gasoline stations (without repair shop)	C15	C15-1	A	Low	2	35482 KENAI SPUR HWY
Hardware stores	C17	C17-1	A	Low	2	267 N ASPEN DR
Hardware stores	C17	C17-2	A	Low	2	35477 KENAI SPUR HWY # 2
Hardware stores	C17	C17-3	A	Low	2	35440 KENAI SPUR HWY
Hardware stores	C17	C17-4	A	Low	2	35220 KENAI SPUR HWY
Heavy equipment rental/storage	C18	C18-1	A	Medium	2	241 N ASPEN DR
Heavy equipment rental/storage	C18	C18-2	A	Medium	2	35338 KENAI SPUR HWY # 1
Heavy equipment rental/storage	C18	C18-3	A	Medium	2	224 KENAI AVE
Motor vehicle dealerships - cars, trucks, motor cycles, ATV's, snow machines, boats (with service department)	C27	C27-1	A	Medium	2	35105 KENAI SPUR HWY
Motor /motor vehicle repair shops	C31	C31-1	A	Medium	3	44730 SPRUCE AVE
Photography supplies/photo processing laboratories	C36	C36-1	A	Low	2	173 E REDOUBT AVE
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	A	Low	4	> 100 sewerlines in Zone A.
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19-24	A	Low	4	5 large capacity septic in Zone A

Table 7 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Other Organic Chemicals*

PWSID 241054.002

<i>Contaminant Source Type</i>	<i>Contaminant Source ID</i>	<i>CS ID tag</i>	<i>Zone</i>	<i>Risk Ranking for Analysis</i>	<i>Map Number</i>	<i>Comments</i>
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-1-3	A	Medium	4	3 motor vehicle waste disposal wells
Residential Areas	R01	R01-1	A	Low	4	14 residential acres in Zone A
Septic systems (serves one single-family home)	R02	R02-1-112	A	Low	4	112 residential septic systems (R02) in Zone A
Petroleum product bulk station/terminals	X11	X11-1	A	High	2	305 W MARYDALE AVE
Boat yards and marinas	X15	X15-1	A	Low	2	255 N ASPEN DR
Highways and roads, paved (cement or asphalt)	X20	X20-1-50	A	Low	4	50 roads in Zone A. Assumed to be paved.
Motor vehicle/general storage yards/facilities	X27	X27-1	A	Low	2	35338 KENAI SPUR HWY # 8
Construction trade areas and materials	C09	C09-4	B	Low	2	224 KENAI AVE
Domestic wastewater collection systems (sewer lines or lift stations)	D01	D01	B	Low	4	Approximately 90 sewerlines
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-4-18	B	Low	4	15 large capacity septic systems
Injection wells (Class V) Motor Vehicle Waste Disposal Well	D42	D42-4-9	B	Medium	4	6 motor vehicle disposal systems
Cement manufacturing	I08	I08-1	B	Very High	2	224 KENAI AVE
Residential Areas	R01	R01-2	B	Low	4	58 residential acres in Zone B.
Septic systems (serves one single-family home)	R02	R02-113-83	B	Low	4	63 residential septic systems in Zone B
Soil borings	W08	W08-1	B	Medium	3	36230 GIBSON AVE
Bus maintenance facilities	X16	X16-1	B	Medium	3	36230 GIBSON AVE
Highways and roads, paved (cement or asphalt)	X20	X20-51-69	B	Low	4	30 roads in Zone B
Motor vehicle/general storage yards/facilities	X27	X27-2	B	Low	2	312 TYEE ST

Table 7 (continued)

*Contaminant Source Inventory and Risk Ranking for
City of Soldotna-Well B
Sources of Other Organic Chemicals*

PWSID 241054.002

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10	C	Low	4	5 large capacity septic systems
Residential Areas	R01	R01-3	C	Low	4	110 residential acres in Zone C
Septic systems (serves one single-family home)	R02	R02-84-255	C	Low	4	72 residential septic systems in Zone C
Highways and roads, paved (cement or asphalt)	X20	X20-70-83	C	Low	4	13 roads (X20)

APPENDIX C

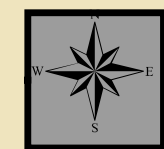
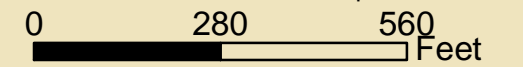
City of Soldotna-Well B Drinking Water Protection Area and Potential and Existing Contaminant Sources (Map 2, 3 and 4)

City of Soldotna
Well B
PWSID 241054.002



Legend	
	Residential Area (R02)
	Injection wells (Class V) Septic System (Drainfield Disposal Method) (D10)
	Injection wells (Class V) Motor Vehicle Waste Disposal Well (D42)
	Septic systems (serves one single-family home and/or less than 20 people)(R02)
	Gravel Pit (E10)
	Body shops (automotive) (C05)
	Car washes with engine or undercarriage cleaning (C08)
	Construction trade areas and materials (C09)
	Florists (C12)
	Gasoline stations (without repair shop) (C15)
	Hardware stores (C17)
	Heavy equipment rental/storage (C18)
	Jewelers (C19)
	Laboratories (chemical, soils, and research) (C20)
	Laundromats without dry cleaning (C22)
	Lawn and garden supplies/services (C23)
	Motor vehicle dealerships (with service department) (C27)
	Motor/motor vehicle supplies stores (C28)
	Motor vehicle rental facilities (with service department) (C30)
	Motor /motor vehicle repair shops (C31)
	Paint sales /service (C32)
	Pet groomers (C34)
	Pharmacies (with on-site wastewater disposal) (C35)
	Photography supplies/photo processing laboratories (C36)
	Printers, publishers, copiers (C37)
	Taxidermists (C41)
	Injection wells (Class V) Motor Vehicle Waste Disposal Well (D42)
	Recycling and waste reduction facilities (D57)
	Cement Manufacturing (I08)
	Seafood processing (N10)
	Tanks, diesel (underground) (T08)
	Closed tanks, diesel (underground) (T09)
	Tanks, gasoline (underground) (T12)
	Closed tanks, gasoline (underground) (T13)
	Tanks, heating oil, nonresidential (underground) (T16)
	Closed tanks, lubricants or other petroleum products (underground) (T21)
	Contaminated sites, DEC recognized, non-Superfund, non-RCRA (U04)
	Open Leaking Underground Fuel Storage Tank (LUST) Sites (U07)
	Closed Leaking Underground Fuel Storage Tank (LUST) Sites (U08)
	Soil Borings (W08)
	Petroleum product bulk station/terminals (X11)
	Boat yards and marinas (X15)
	Bus maintenance facilities (X16)
	Motor vehicle/general storage yards/facilities (X27)
	Campgrounds and RV Parks (X35)
	Medical/veterinary facilities (X40)

Data Sources:
ADEC-Potential Sources of Contamination
Kenai Peninsula Borough-roads, parcels
USGS- 63K topo map, 1996 aerial photo
Terraserver USA- 1996 aerial photo



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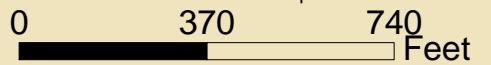
Map 3



Legend

- Residential Area (R02)
- Injection wells (Class V) Septic System (Drainfield Disposal Method) (D10)
- Injection wells (Class V) Motor Vehicle Waste Disposal Well (D42)
- Septic systems (serves one single-family home and/or less than 20 people)(R02)
- Gravel Pit (E10)
- Body shops (automotive) (C05)
- Car washes with engine or undercarriage cleaning (C08)
- Construction trade areas and materials (C09)
- Florists (C12)
- Gasoline stations (without repair shop) (C15)
- Hardware stores (C17)
- Heavy equipment rental/storage (C18)
- Jewelers (C19)
- Laboratories (chemical, soils, and research) (C20)
- Laundromats without dry cleaning (C22)
- Lawn and garden supplies/services (C23)
- Motor vehicle dealerships (with service department) (C27)
- Motor/motor vehicle supplies stores (C28)
- Motor vehicle rental facilities (with service department) (C30)
- Motor /motor vehicle repair shops (C31)
- Paint sales /service (C32)
- Pet groomers (C34)
- Pharmacies (with on-site wastewater disposal) (C35)
- Photography supplies/photo processing laboratories (C36)
- Printers, publishers, copiers (C37)
- Taxidermists (C41)
- Injection wells (Class V) Motor Vehicle Waste Disposal Well (D42)
- Recycling and waste reduction facilities (D57)
- Cement Manufacturing (I08)
- Seafood processing (N10)
- Tanks, diesel (underground) (T08)
- Closed tanks, diesel (underground) (T09)
- Tanks, gasoline (underground) (T12)
- Closed tanks, gasoline (underground) (T13)
- Tanks, heating oil, nonresidential (underground) (T16)
- Closed tanks, lubricants or other petroleum products (underground) (T21)
- Contaminated sites, DEC recognized, non-Superfund, non-RCRA (U04)
- Open Leaking Underground Fuel Storage Tank (LUST) Sites (U07)
- Closed Leaking Underground Fuel Storage Tank (LUST) Sites (U08)
- Soil Borings (W08)
- Petroleum product bulk station/terminals (X11)
- Boat yards and marinas (X15)
- Bus maintenance facilities (X16)
- Motor vehicle/general storage yards/facilities (X27)
- Campgrounds and RV Parks (X35)
- Medical/veterinary facilities (X40)

Data Sources:
ADEC-Potential Sources of Contamination
Kenai Peninsula Borough-roads, parcels
USGS- 63K topo map, 1996 aerial photo
Terraserver-USA- 1996 aerial photo



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Map 2

City of Soldotna Well B PWSID 241054.002

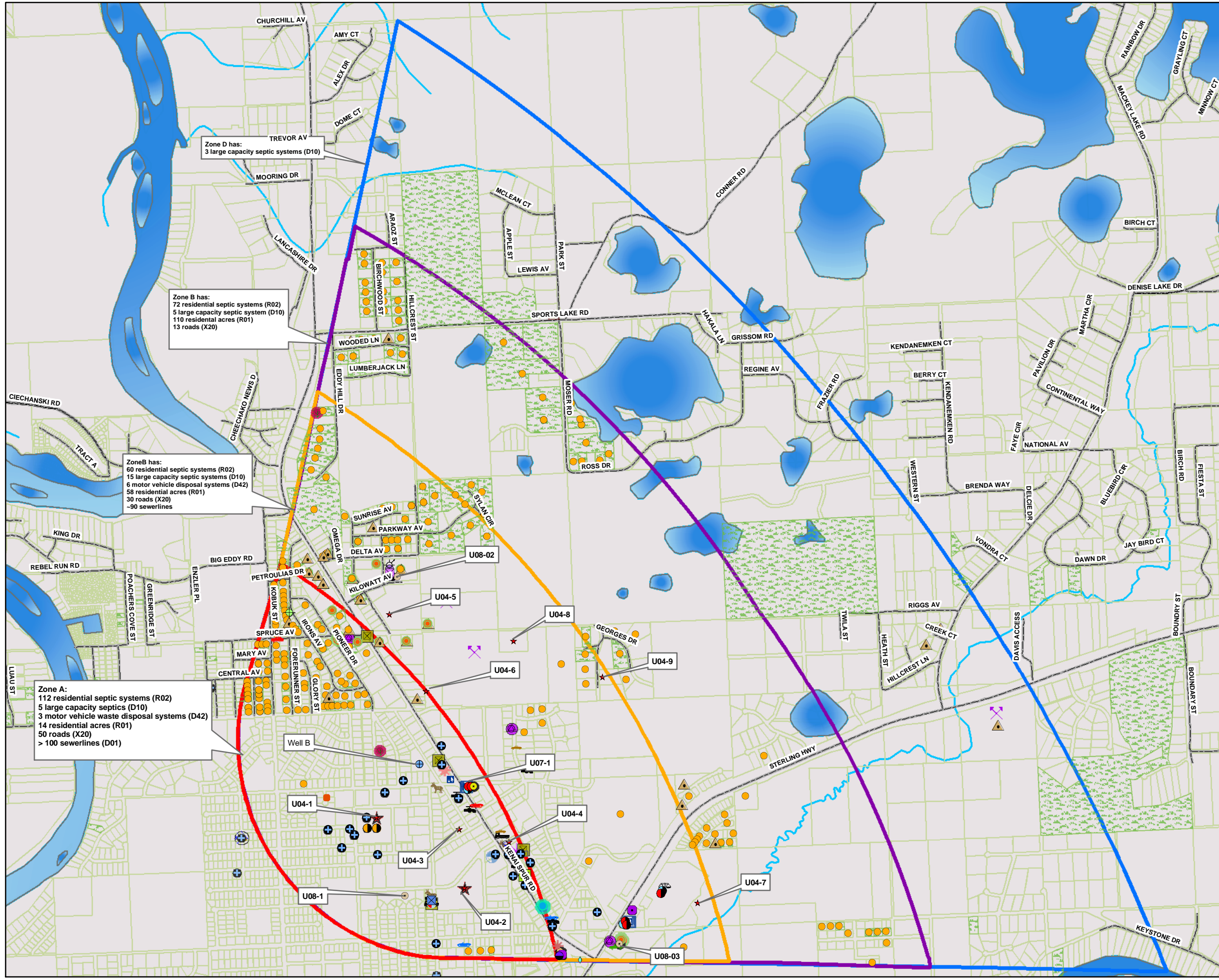
Legend

- Injection wells (Class V) Septic System (Drainfield Disposal Method) (D10)
- Injection wells (Class V) Motor Vehicle Waste Disposal Well (D42)
- Septic systems (serves one single-family home and/or less than 20 people)(R02)
- Residential Area (R02)
- Gravel Pit (E10)
- Body shops (automotive) (C05)
- Car washes with engine or undercarriage cleaning (C08)
- Construction trade areas and materials (C09)
- Florists (C12)
- Gasoline stations (without repair shop) (C15)
- Hardware stores (C17)
- Heavy equipment rental/storage (C18)
- Jewelers (C19)
- Laboratories (chemical, soils, and research) (C20)
- Laundromats without dry cleaning (C22)
- Lawn and garden supplies/services (C23)
- Motor vehicle dealerships (with service department) (C27)
- Motor/motor vehicle supplies stores (C28)
- Motor vehicle rental facilities (with service department) (C30)
- Motor/motor vehicle repair shops (C31)
- Paint sales/service (C32)
- Pet groomers (C34)
- Pharmacies (with on-site wastewater disposal) (C35)
- Photography supplies/photo processing laboratories (C36)
- Printers, publishers, copiers (C37)
- Taxidermists (C41)
- Injection wells (Class V) Motor Vehicle Waste Disposal Well (D42)
- Recycling and waste reduction facilities (D57)
- Cement Manufacturing (I08)
- Seafood processing (N10)
- Tanks, diesel (underground) (T08)
- Closed tanks, diesel (underground) (T09)
- Tanks, gasoline (underground) (T12)
- Closed tanks, gasoline (underground) (T13)
- Tanks, heating oil, nonresidential (underground) (T16)
- Closed tanks, lubricants or other petroleum products (underground) (T21)
- Contaminated sites, DEC recognized, non-Superfund, non-RCRA (U04)
- Open Leaking Underground Fuel Storage Tank (LUST) Sites (U07)
- Closed Leaking Underground Fuel Storage Tank (LUST) Sites (U08)
- Soil Borings (W08)
- Petroleum product bulk station/terminals (X11)
- Boat yards and marinas (X15)
- Bus maintenance facilities (X16)
- Motor vehicle/general storage yards/facilities (X27)
- Campgrounds and RV Parks (X35)
- Medical/veterinary facilities (X40)

Data Sources:
 ADEC-Potential Sources of Contamination
 Kenai Peninsula Borough-roads, parcels
 USGS- 63K topo map, 1996 aerial photo
 Terraserver USA- 1996 aerial photo



Map 4



APPENDIX D

Vulnerability Analysis for City of Soldotna-Well B Public Drinking Water Source (Charts 1-14)

Chart 1. Susceptibility of the wellhead - City of Soldotna-Well B PWSID 241054.002

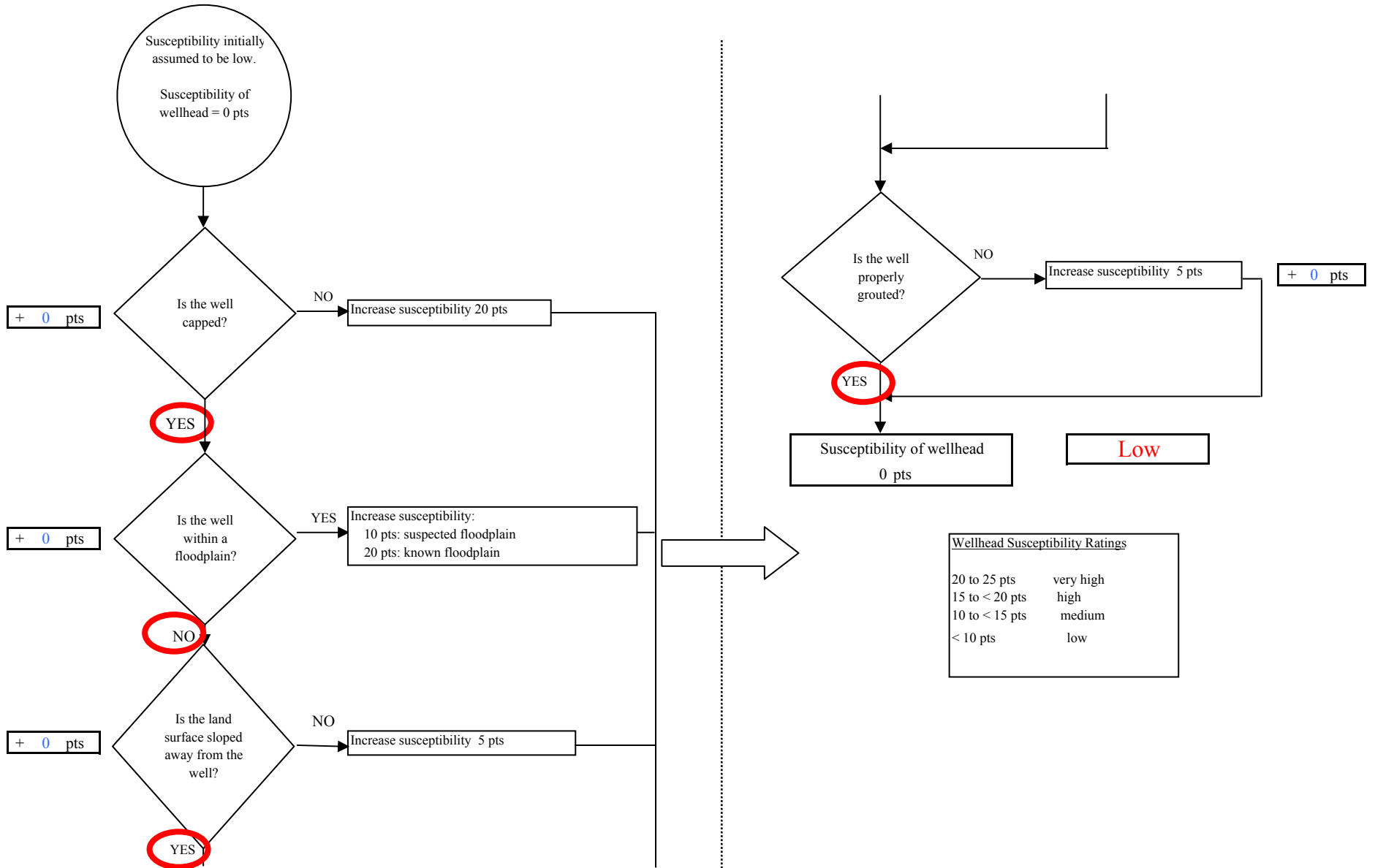


Chart 2. Susceptibility of the aquifer - City of Soldotna-Well B PWSID 241054.002

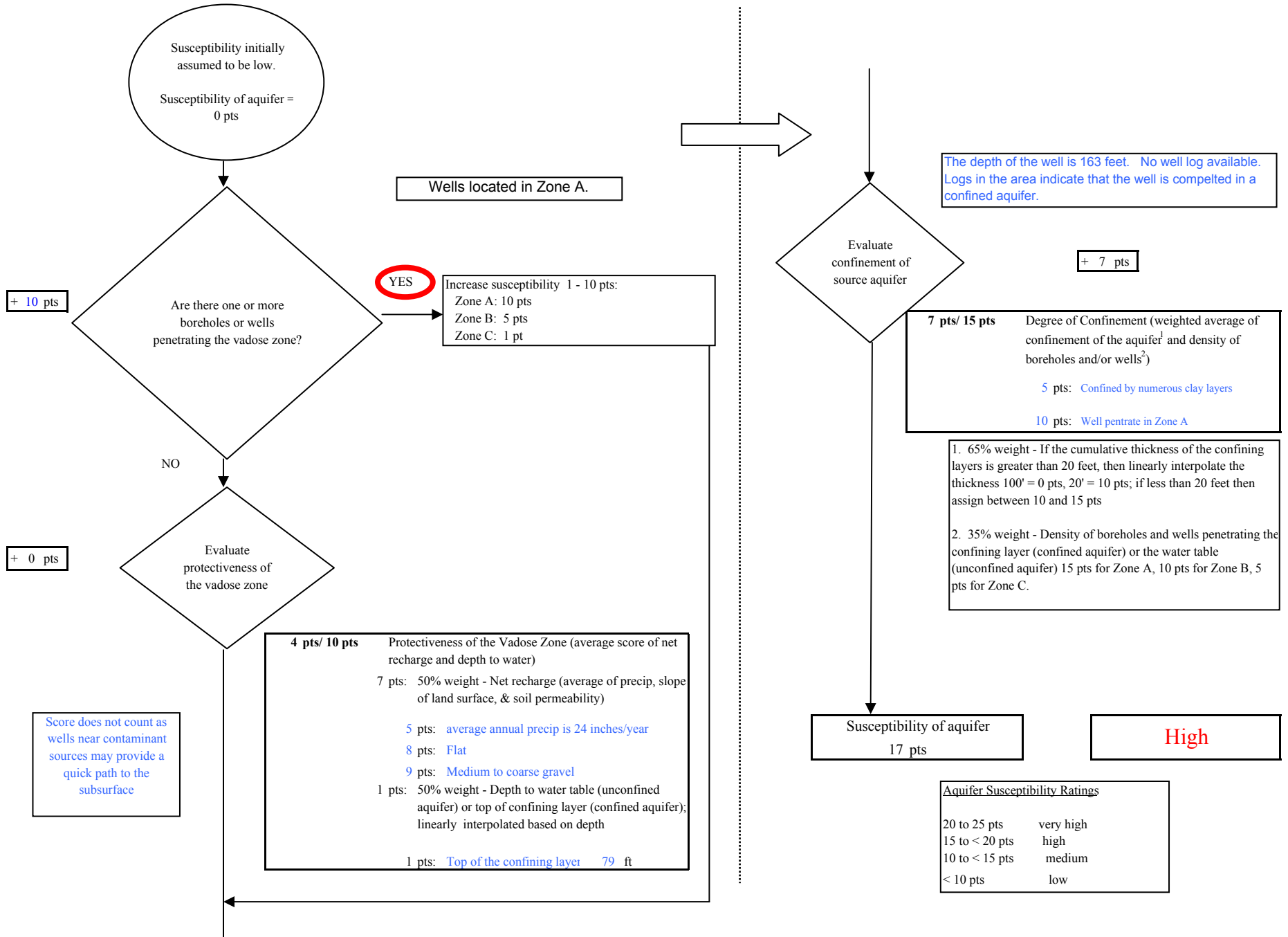
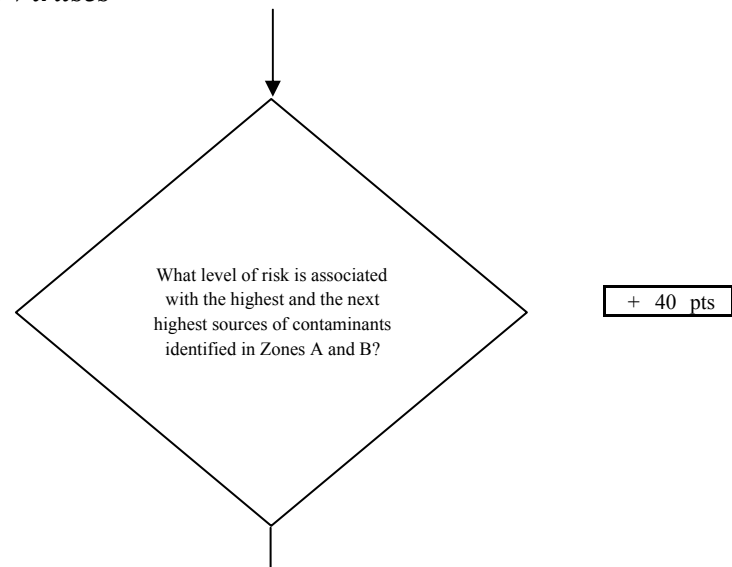
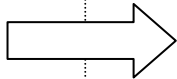
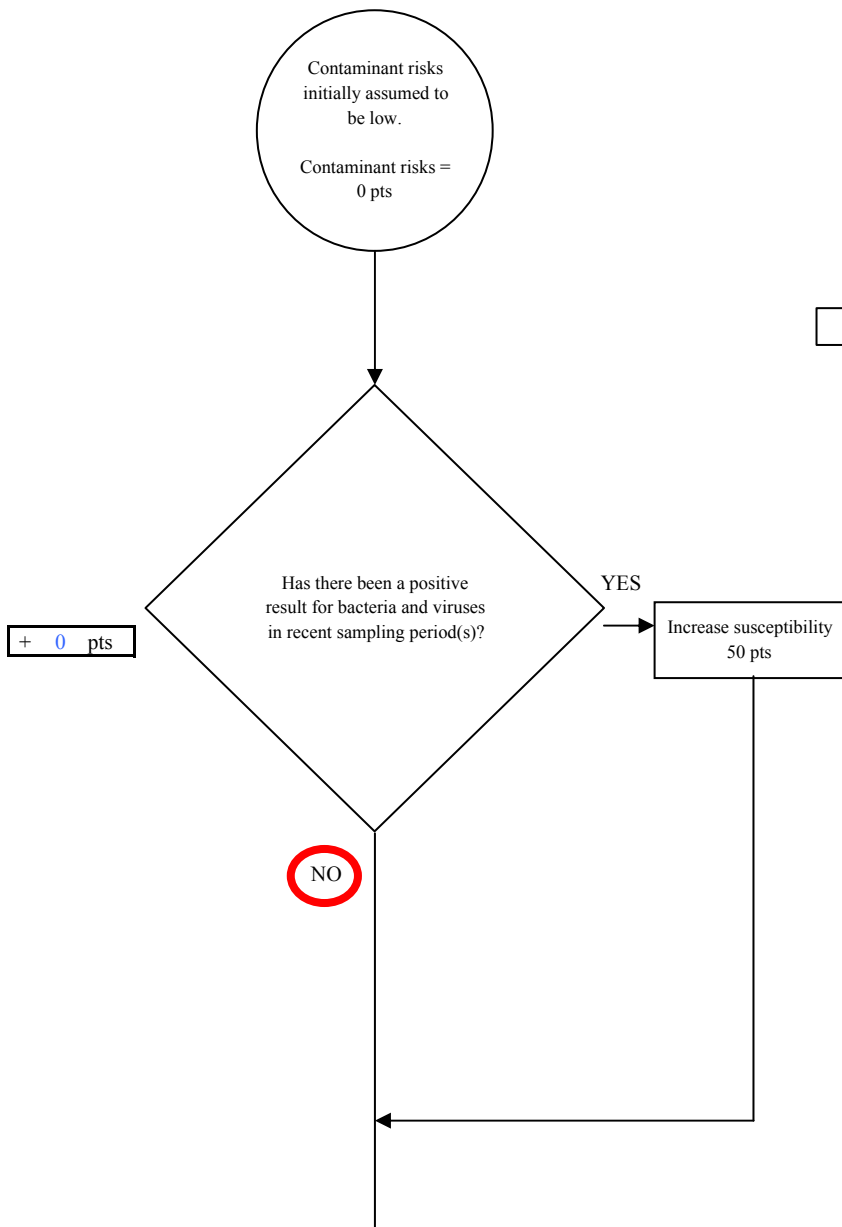


Chart 3. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Bacteria & Viruses



Risk Rankings for Contaminant Sources Identified in Zones A and B			
	Zone A	Zone B	Total
Very High(s)	0	0	0
High(s)	6	15	21
Medium(s)	10	0	10
Low(s)	121	16	137

	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.

Chart 3. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Bacteria & Viruses

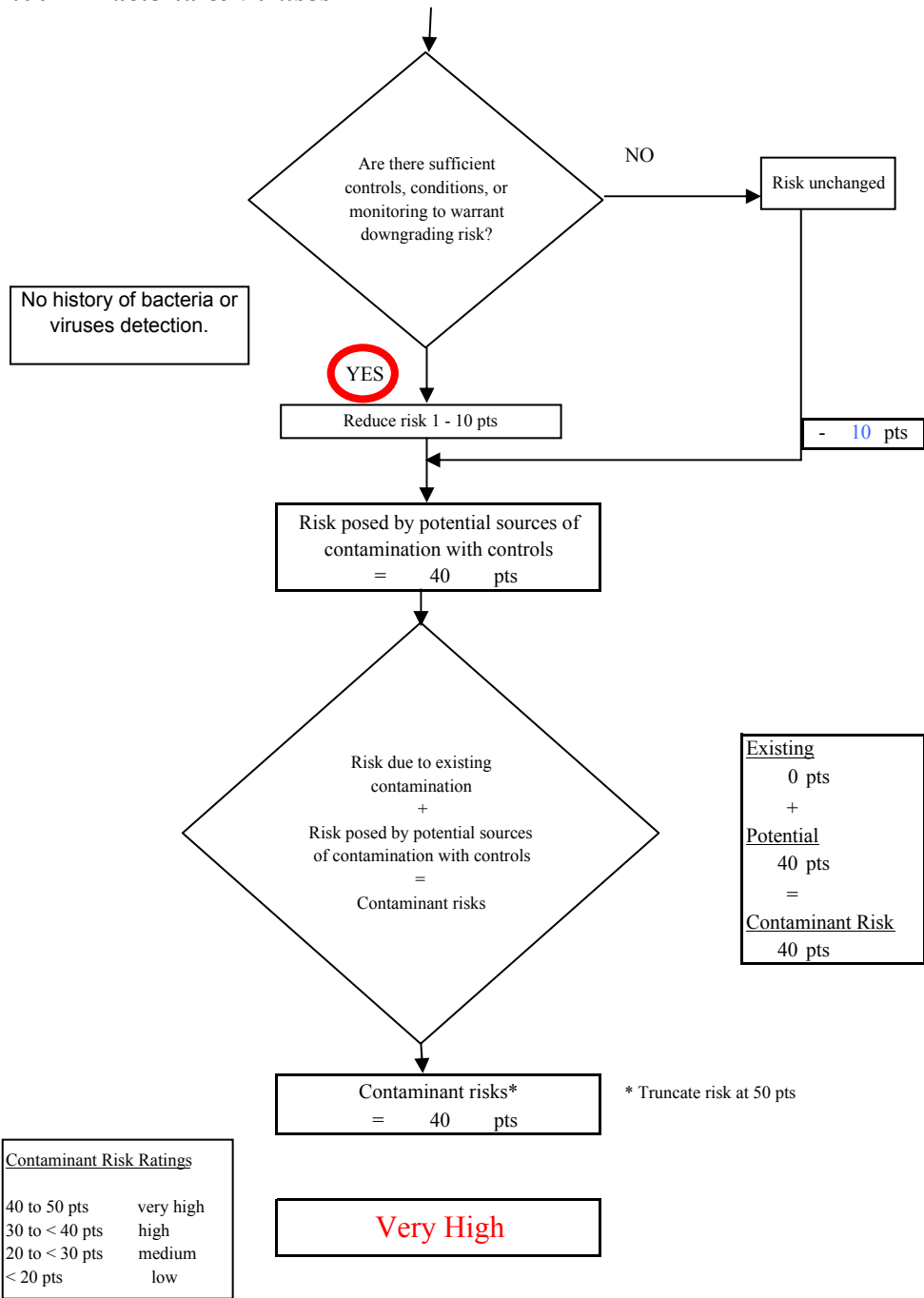
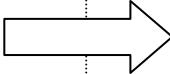
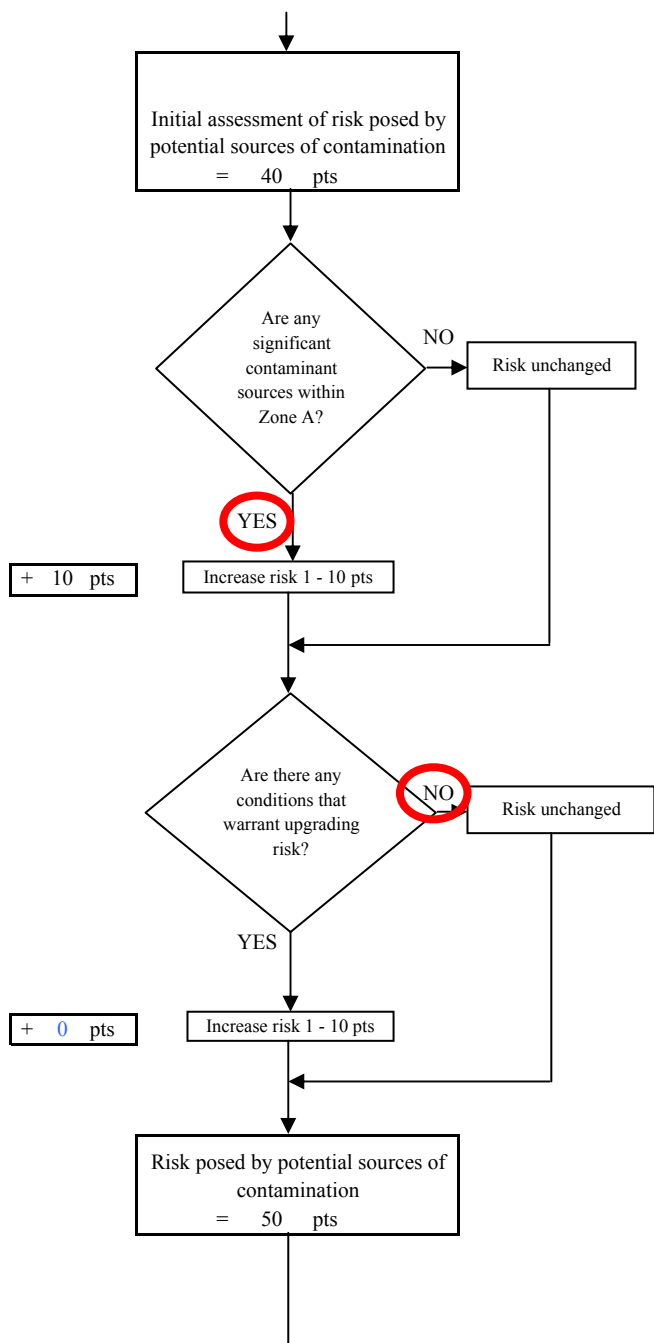


Chart 4. Vulnerability analysis for City of Soldotna-Well B PWSID 241054.002 - Bacteria & Viruses

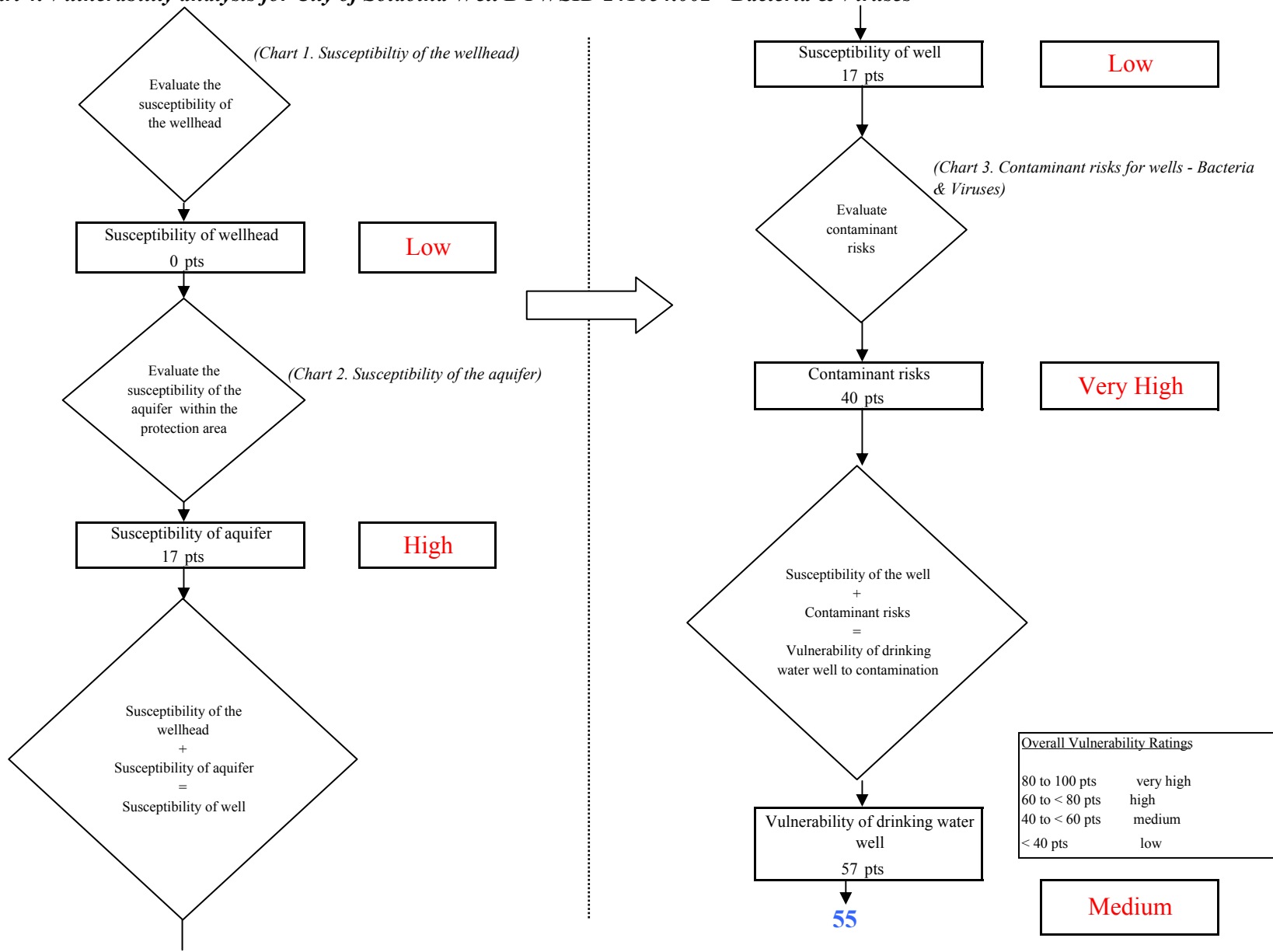


Chart 5. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Nitrates and Nitrites

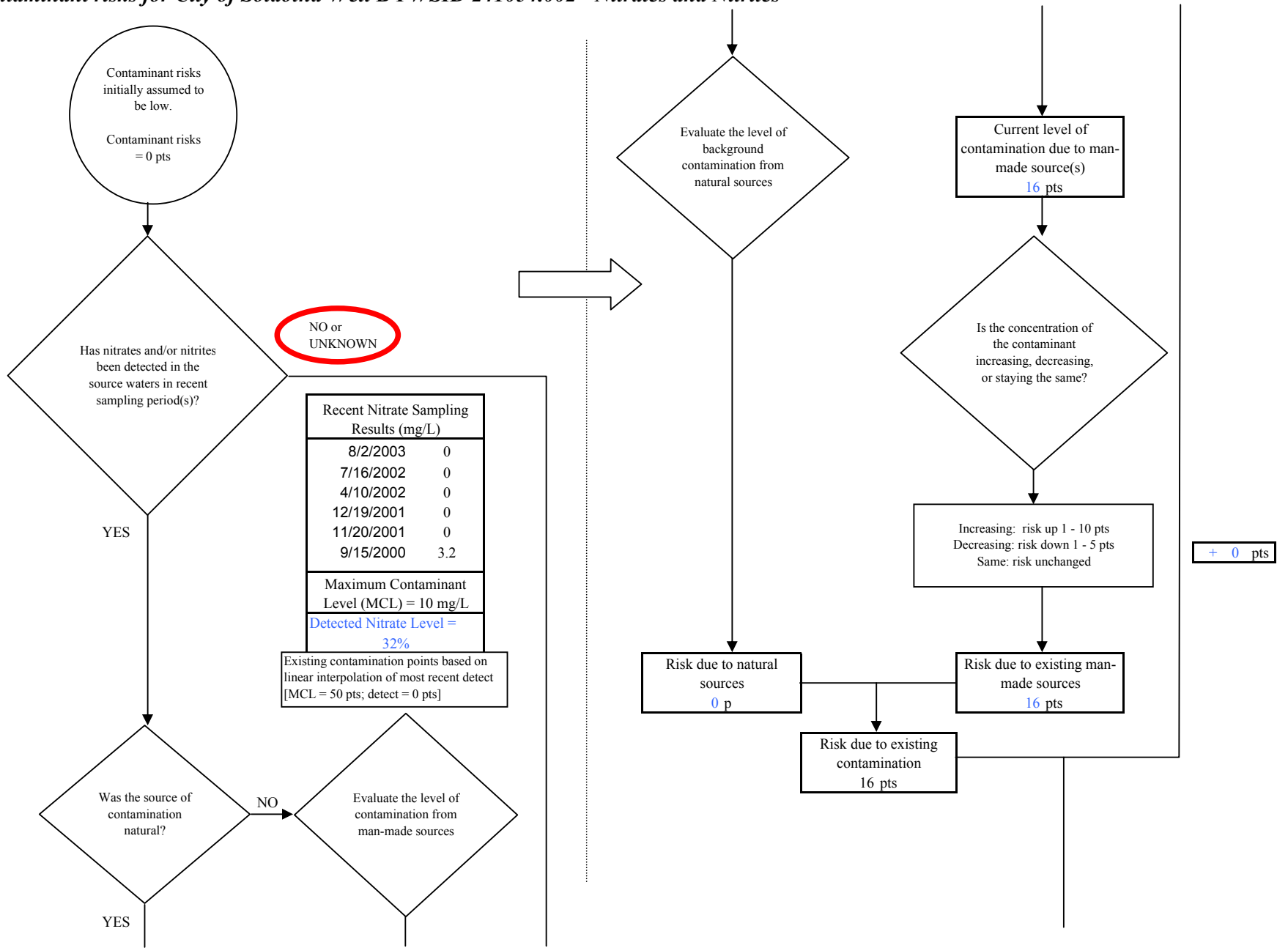


Chart 5. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Nitrates and Nitrites

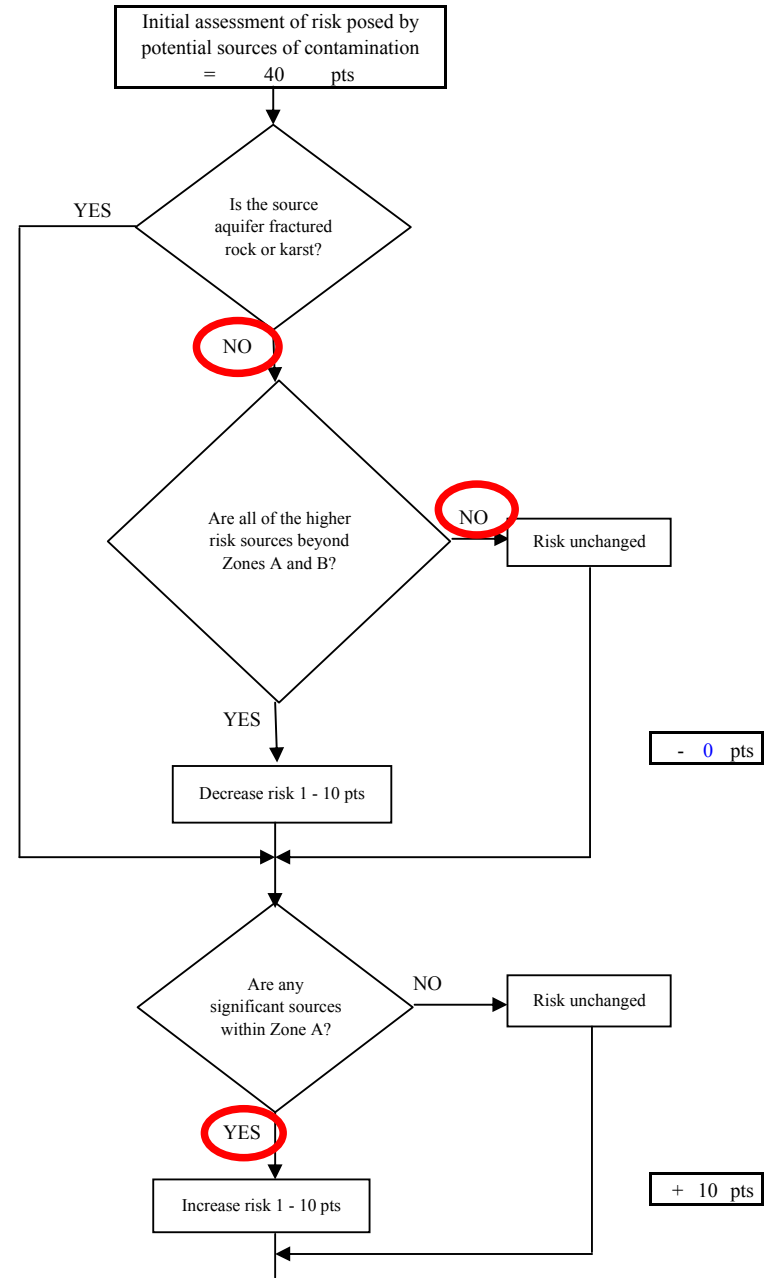
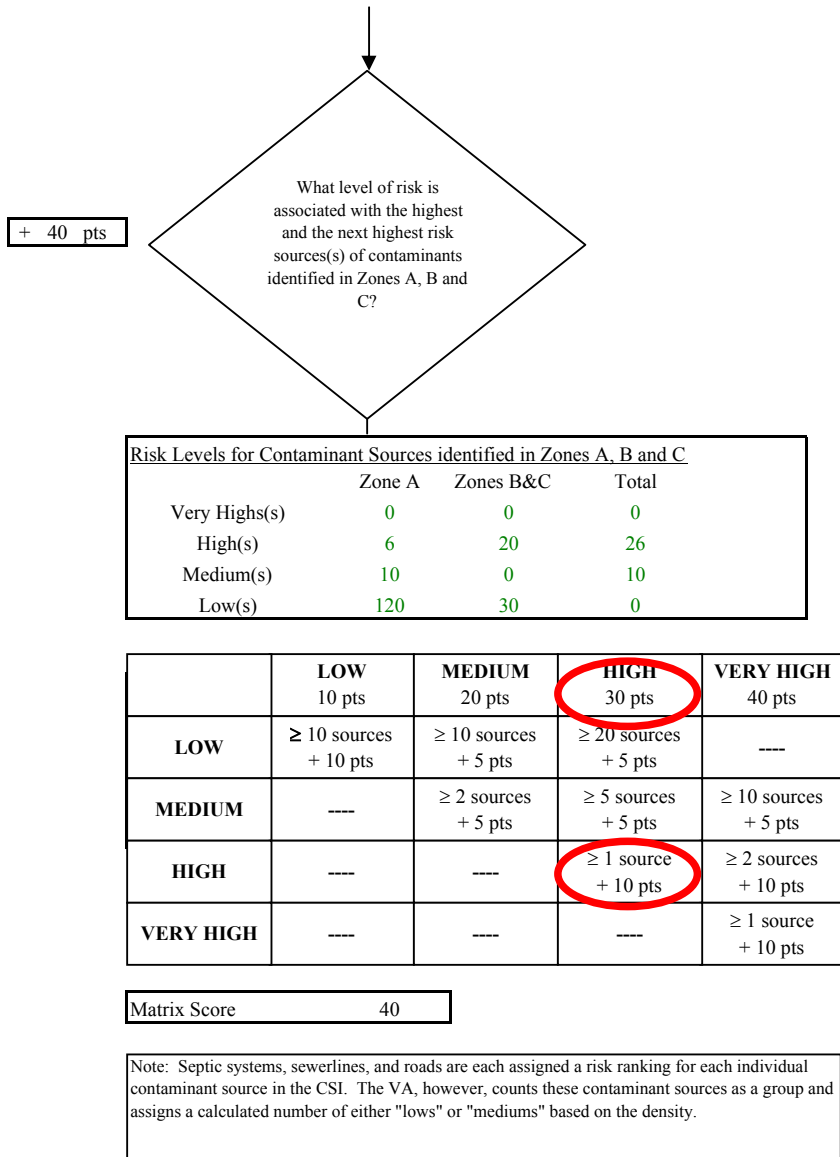


Chart 5. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Nitrates and Nitrites

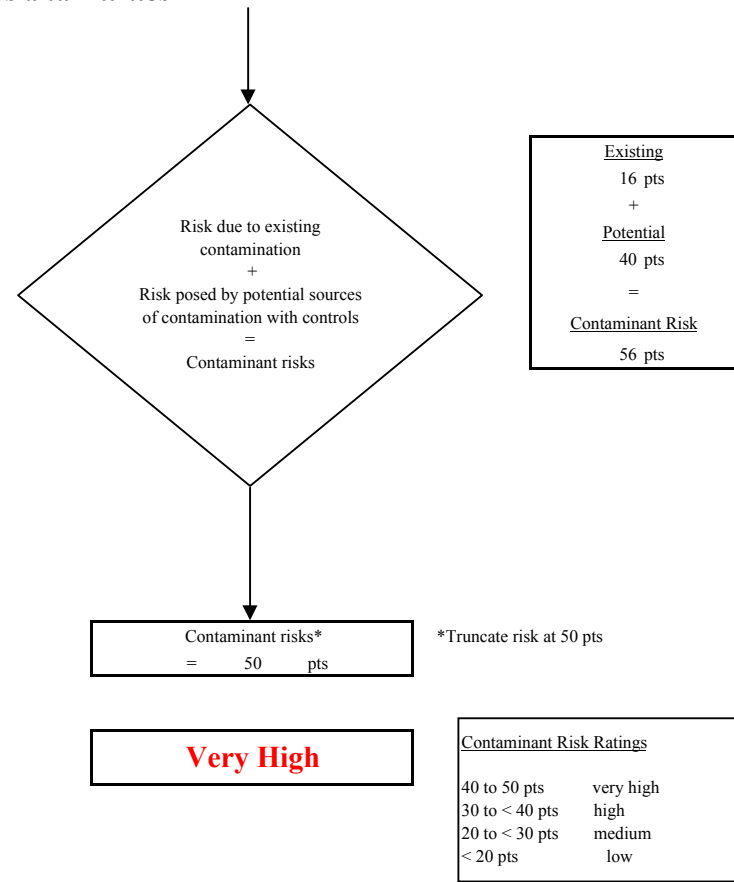
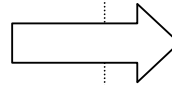
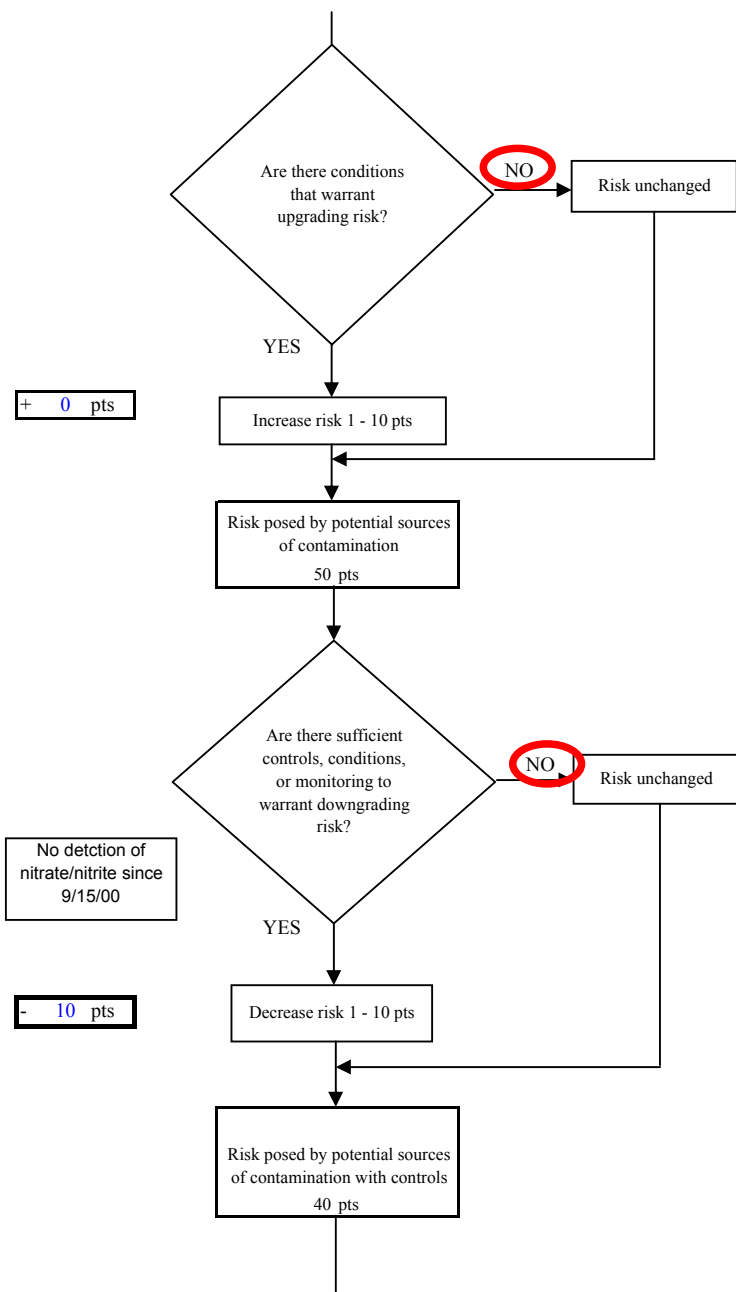


Chart 6. Vulnerability analysis for City of Soldotna-Well B PWSID 241054.002 - Nitrates and Nitrites

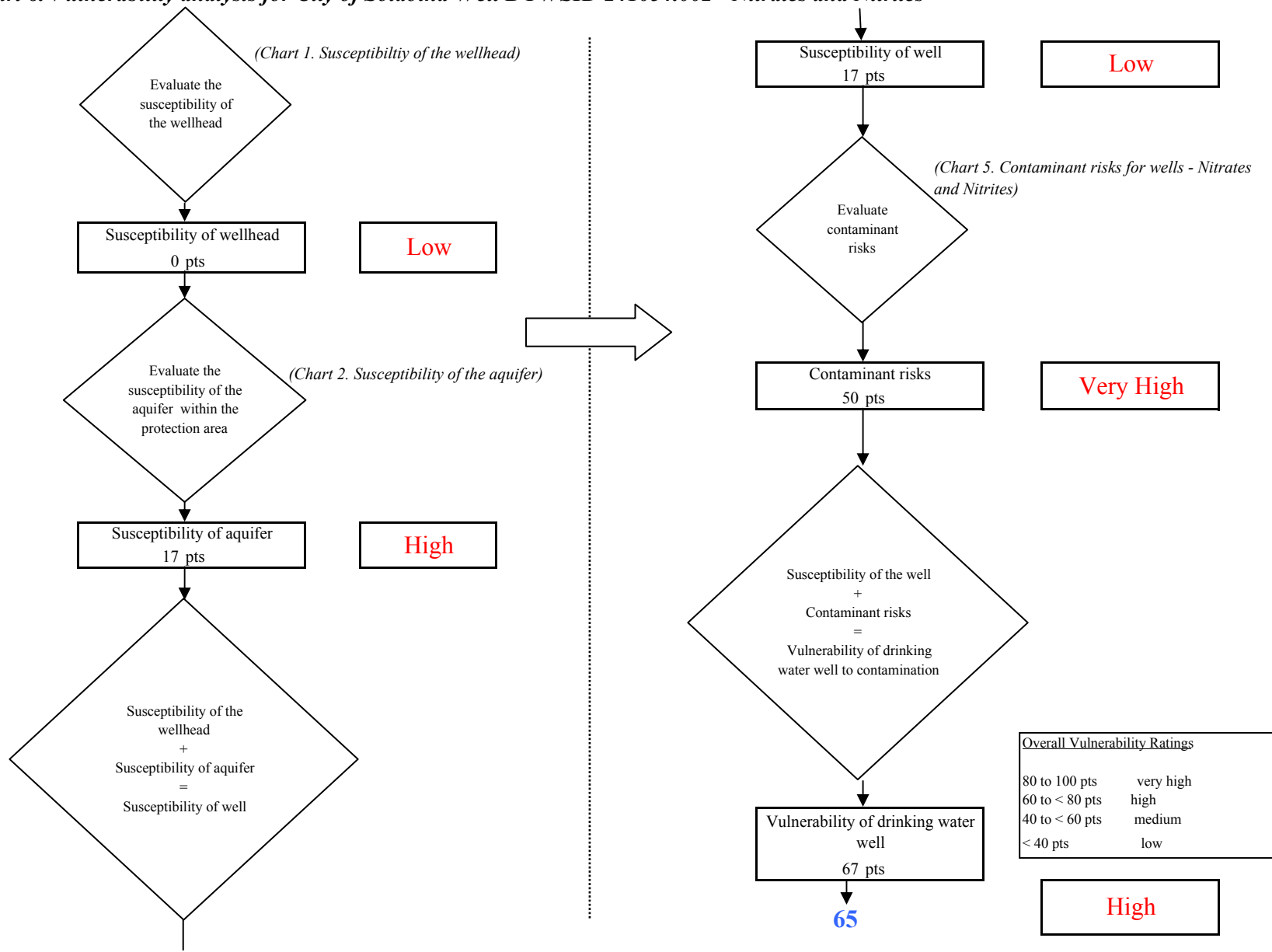


Chart 7. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Volatile Organic Chemicals

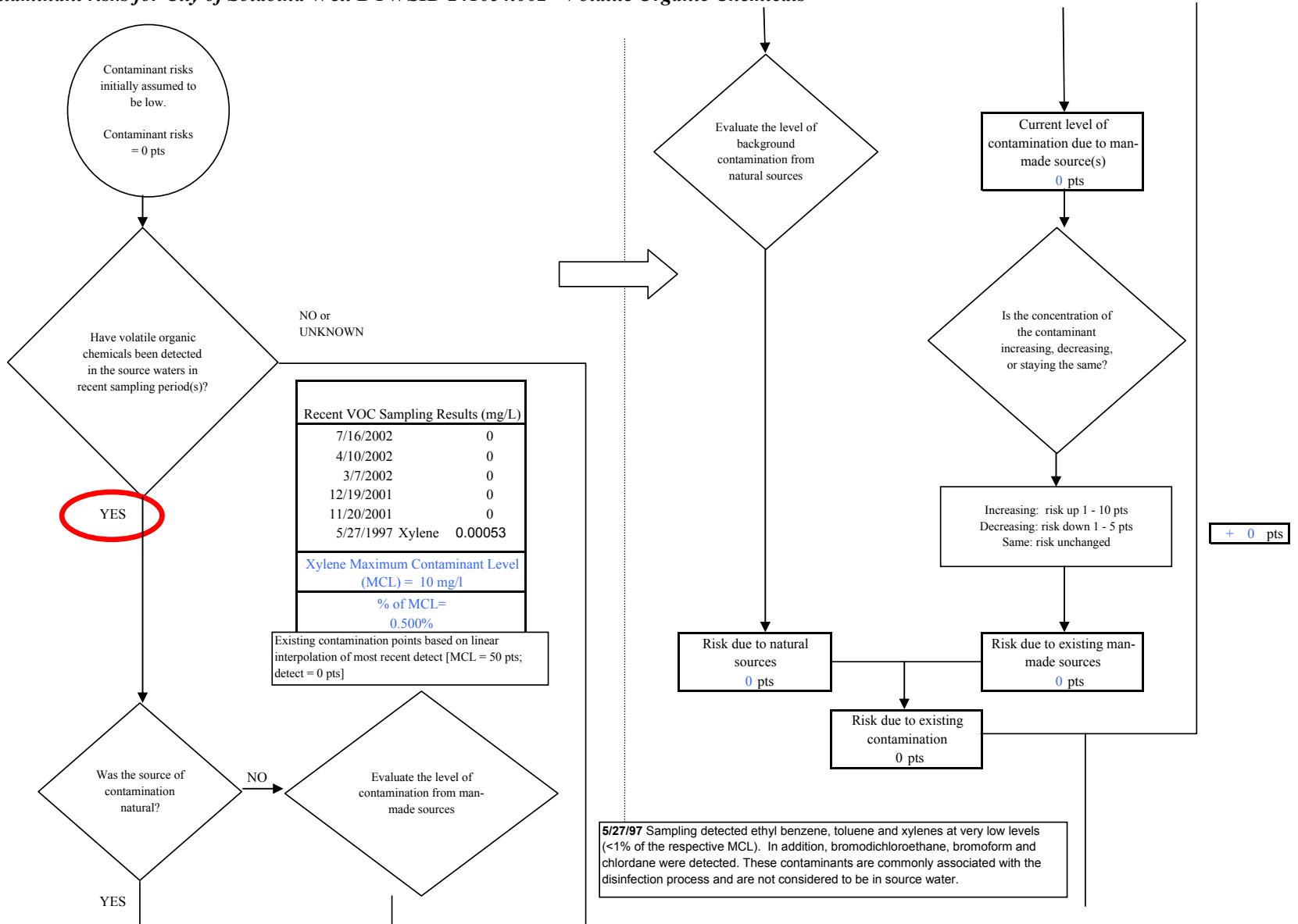


Chart 7. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Volatile Organic Chemicals

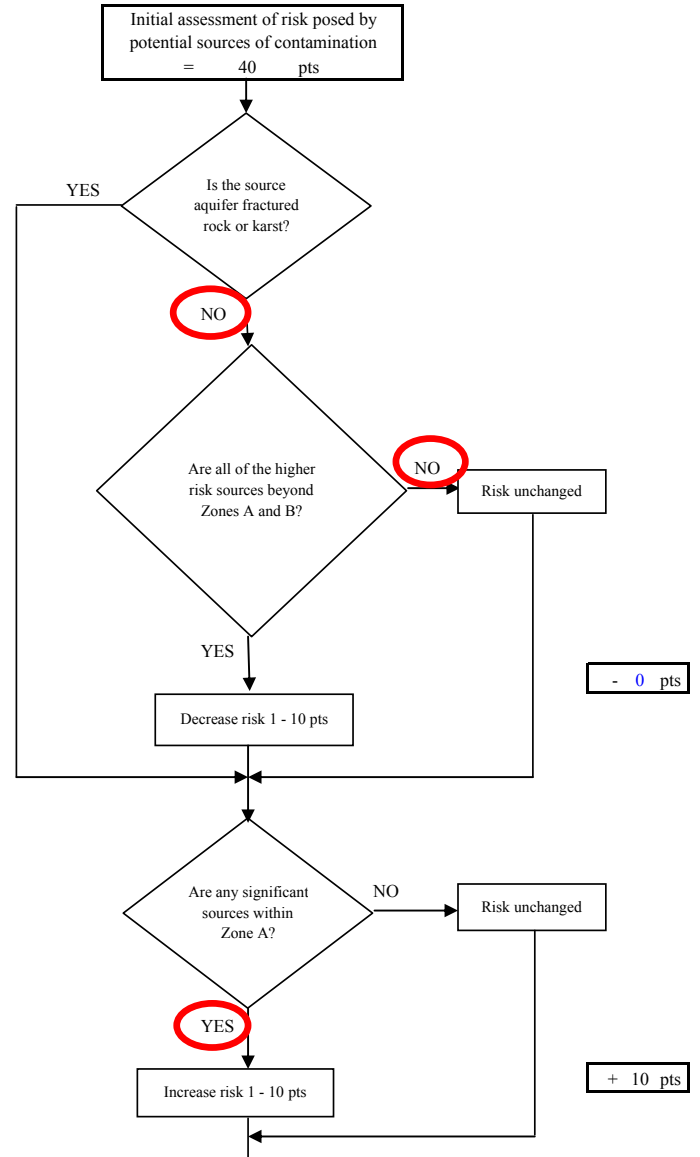
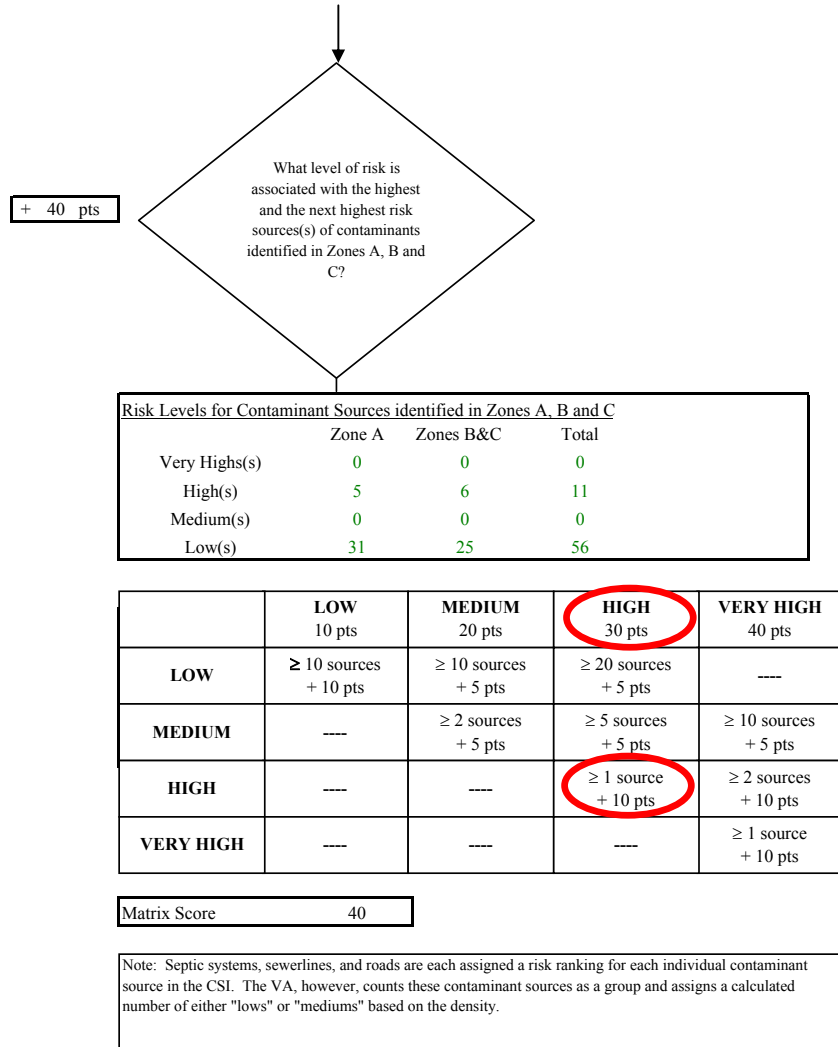


Chart 7. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Volatile Organic Chemicals

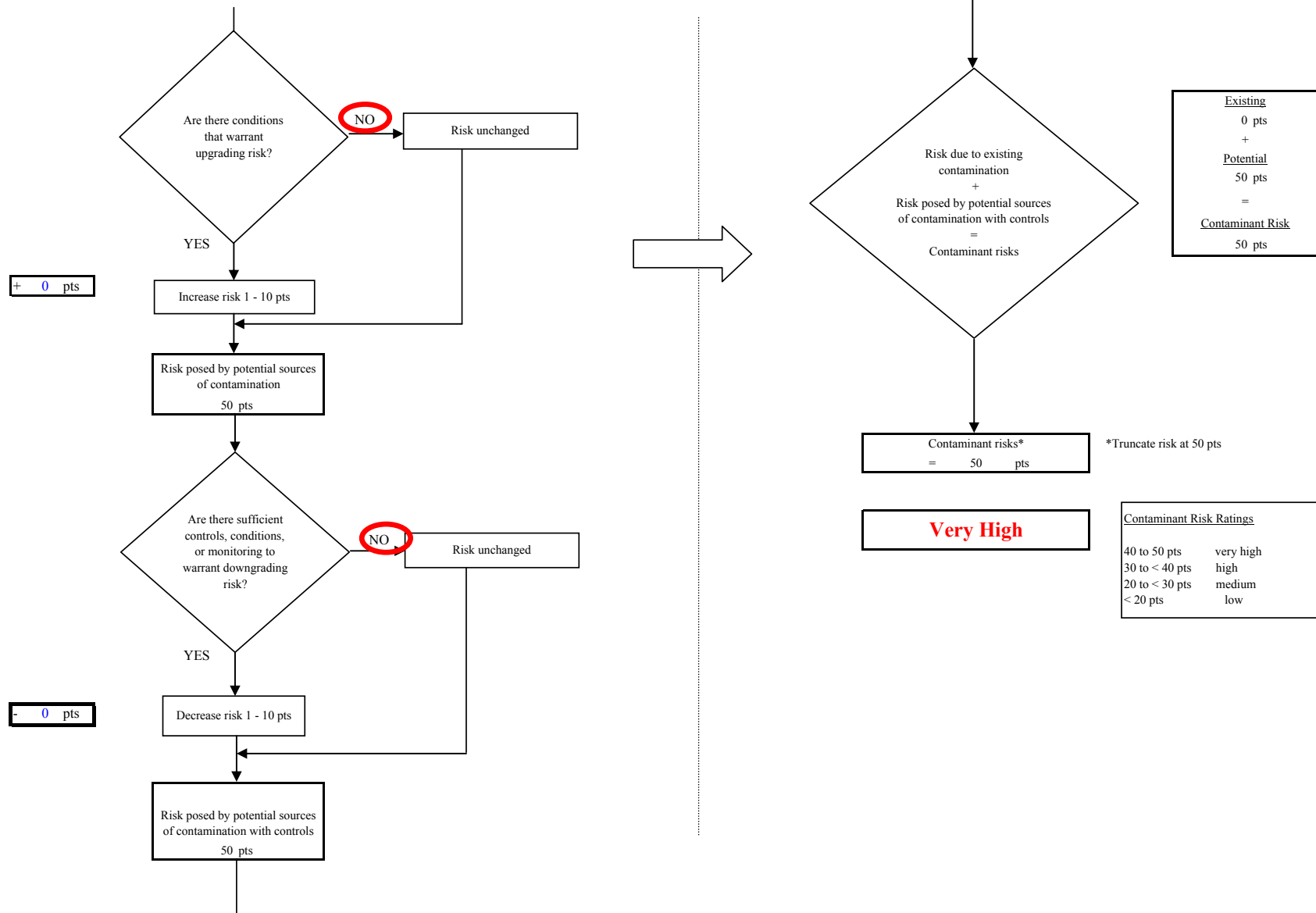


Chart 8. Vulnerability analysis for City of Soldotna-Well B PWSID 241054.002 - Volatile Organic Chemicals

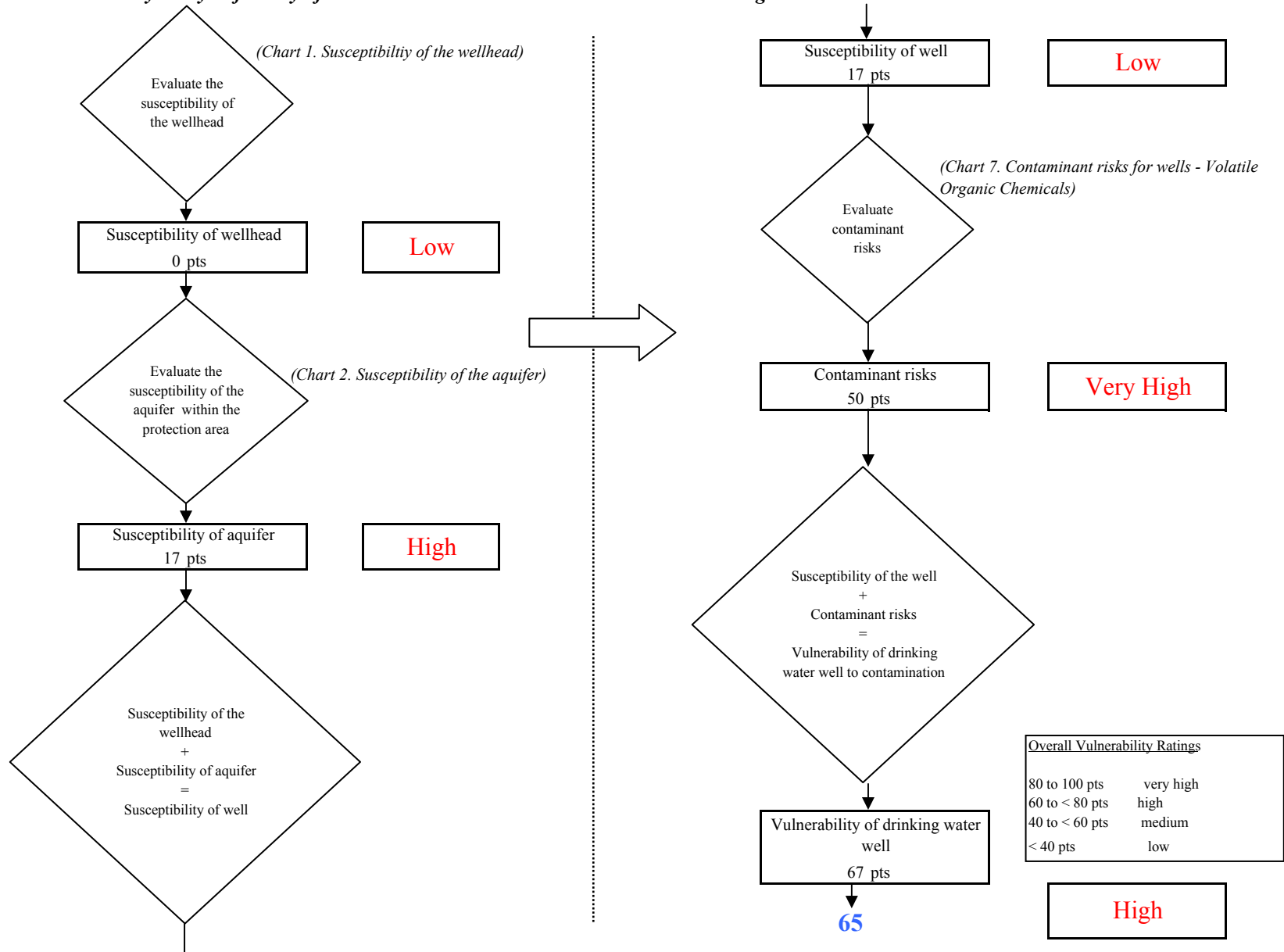


Chart 9. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Heavy Metals, Cyanide and Other Inorganic Chemicals

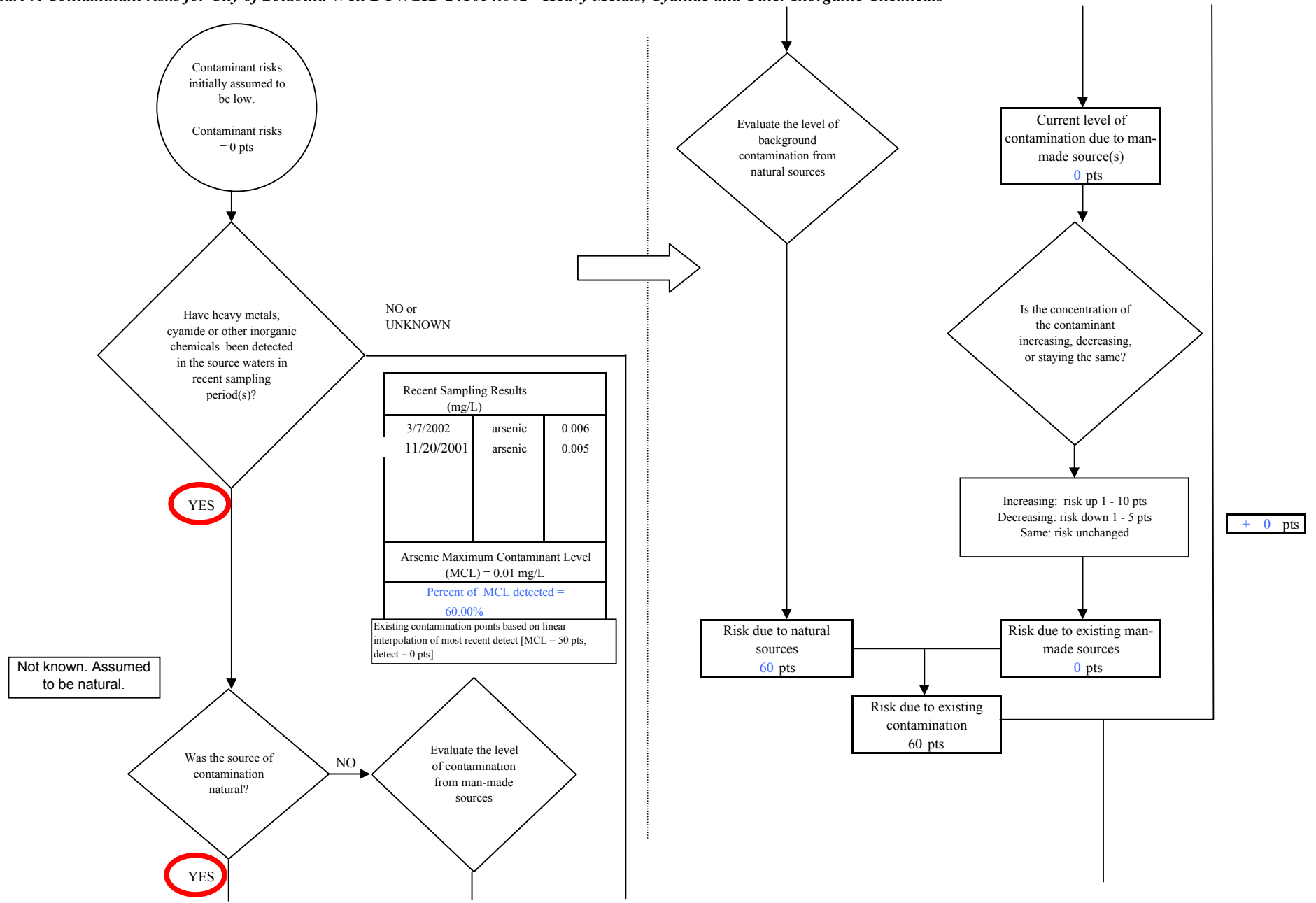


Chart 9. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Heavy Metals, Cyanide and Other Inorganic Chemicals

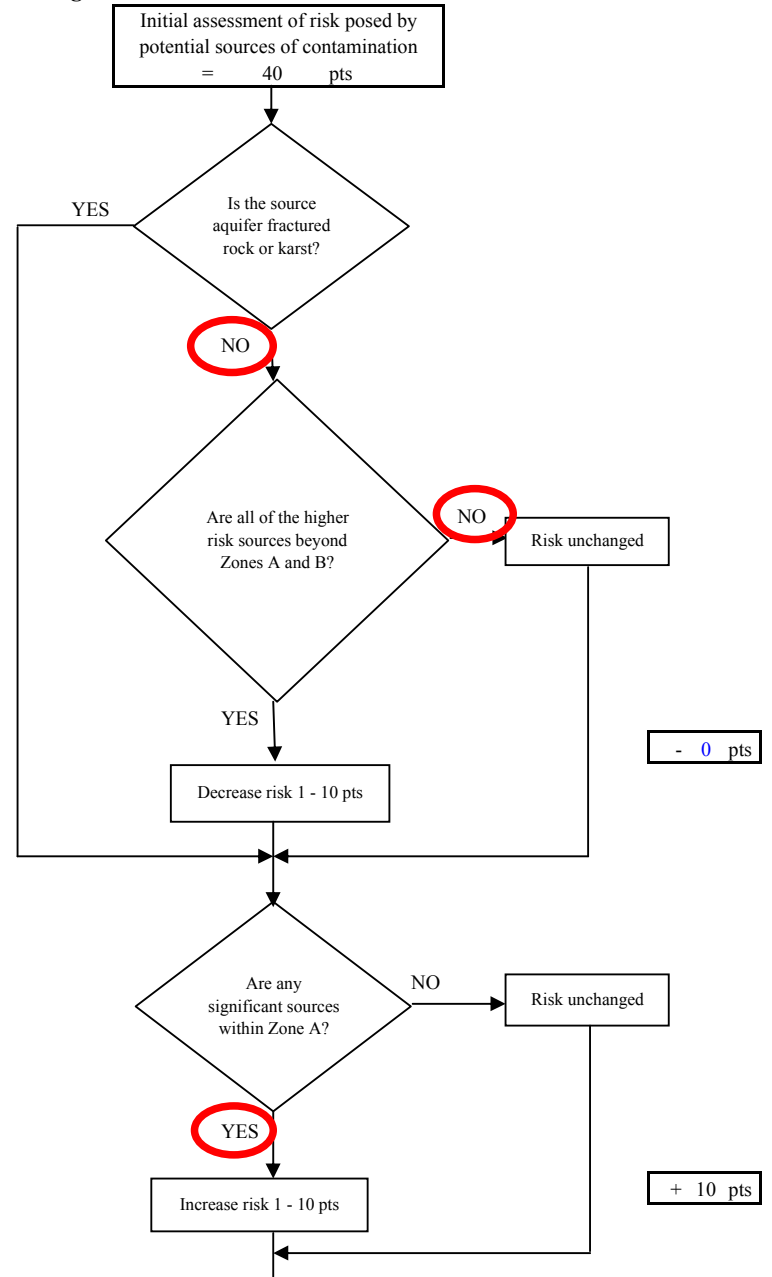
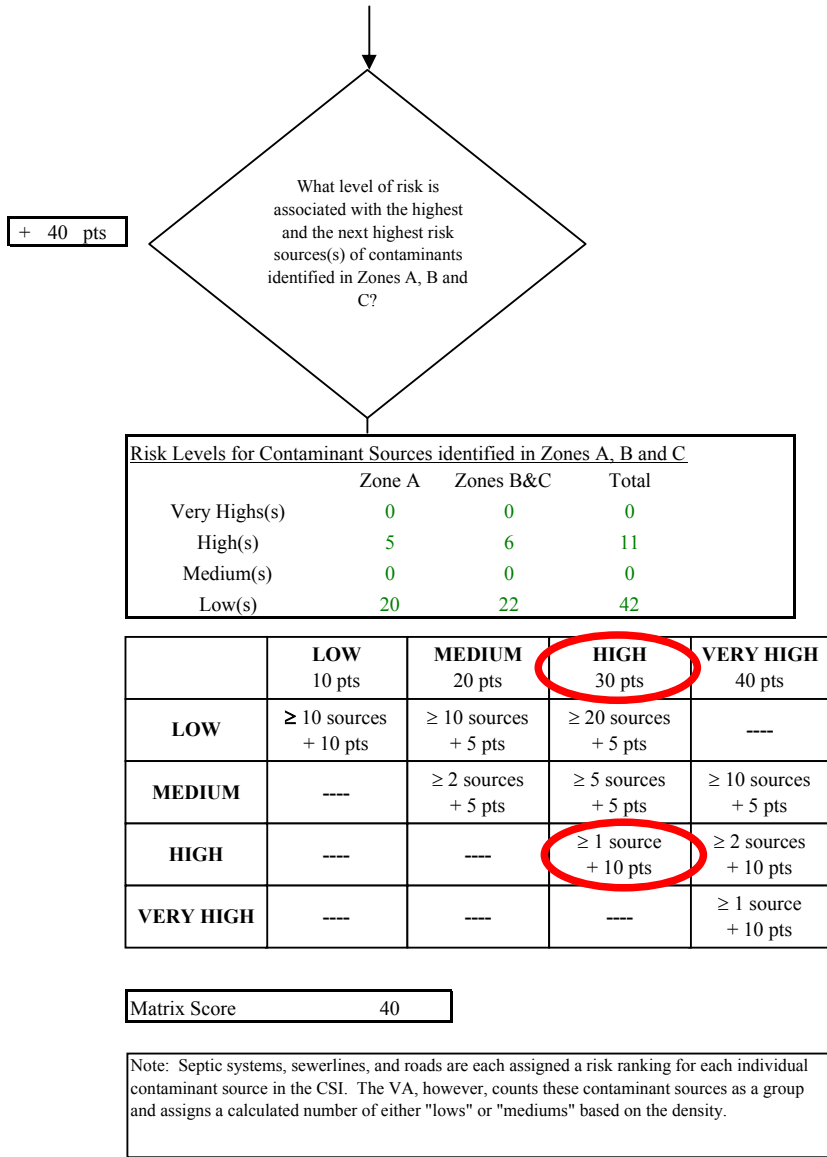
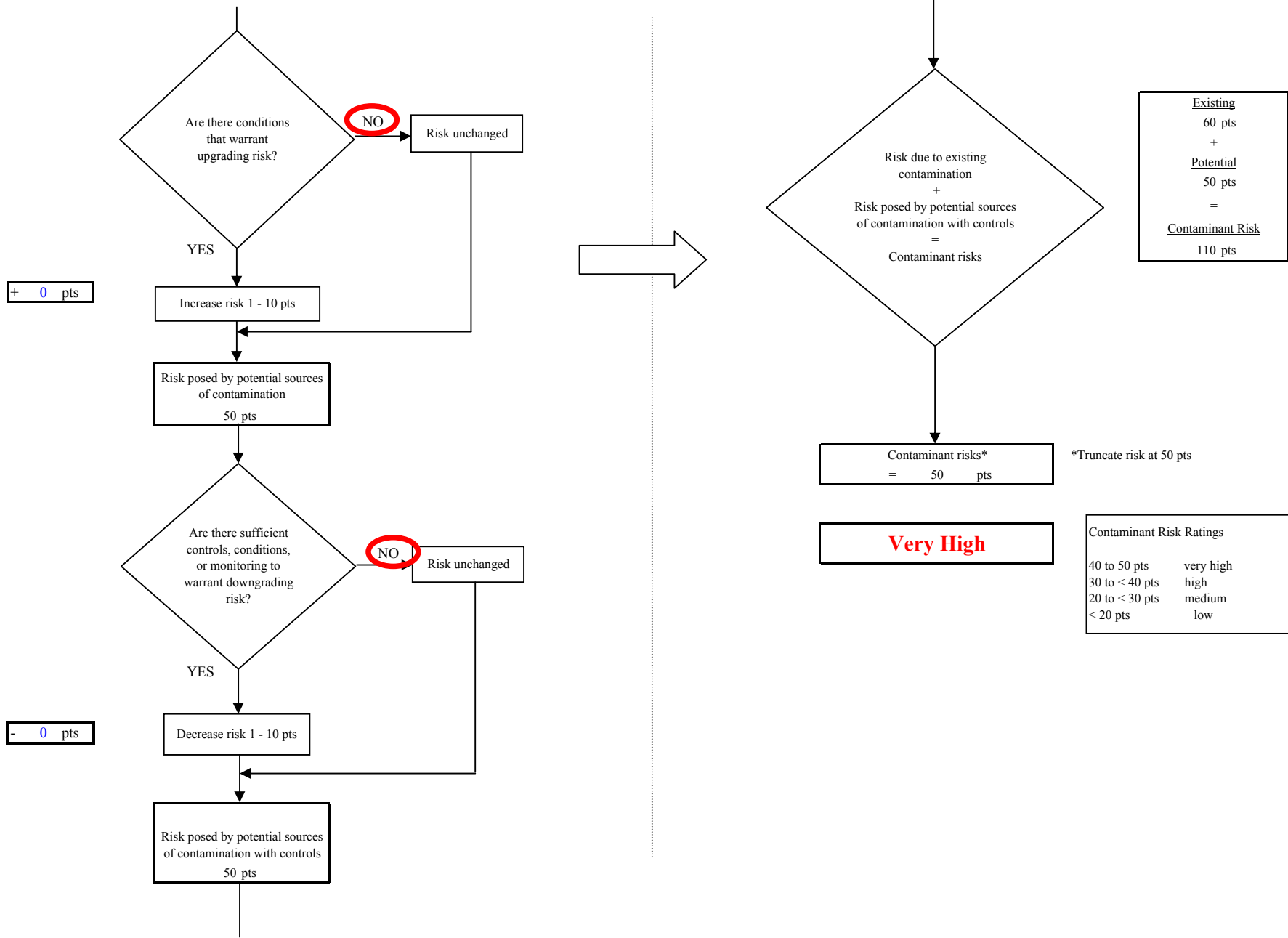


Chart 9. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Heavy Metals, Cyanide and Other Inorganic Chemicals



+ 0 pts

- 0 pts

Chart 10. Vulnerability analysis for City of Soldotna-Well B PWSID 241054.002 - Heavy Metals, Cyanide and Other Inorganic Chemicals

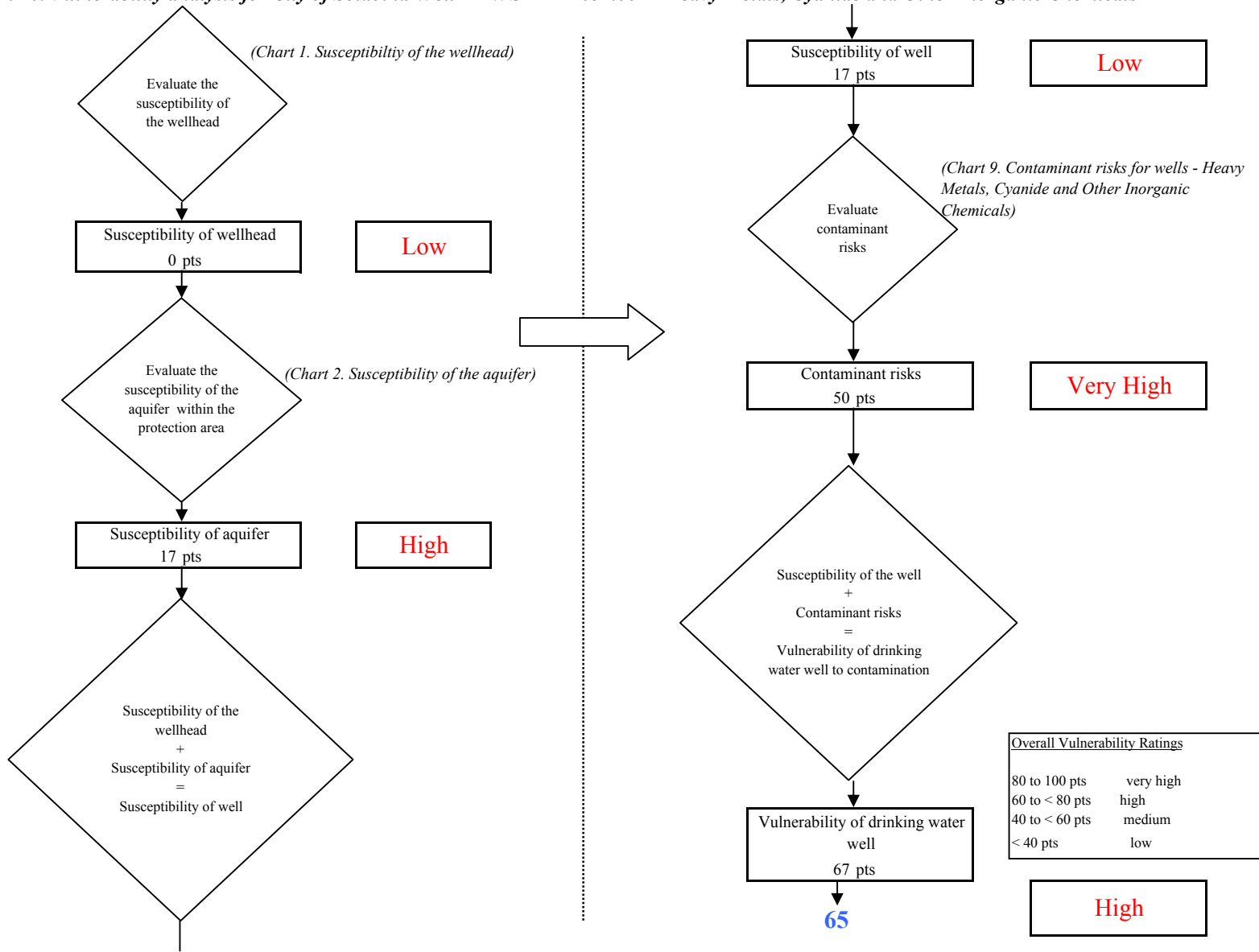


Chart 11. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Synthetic Organic Chemicals

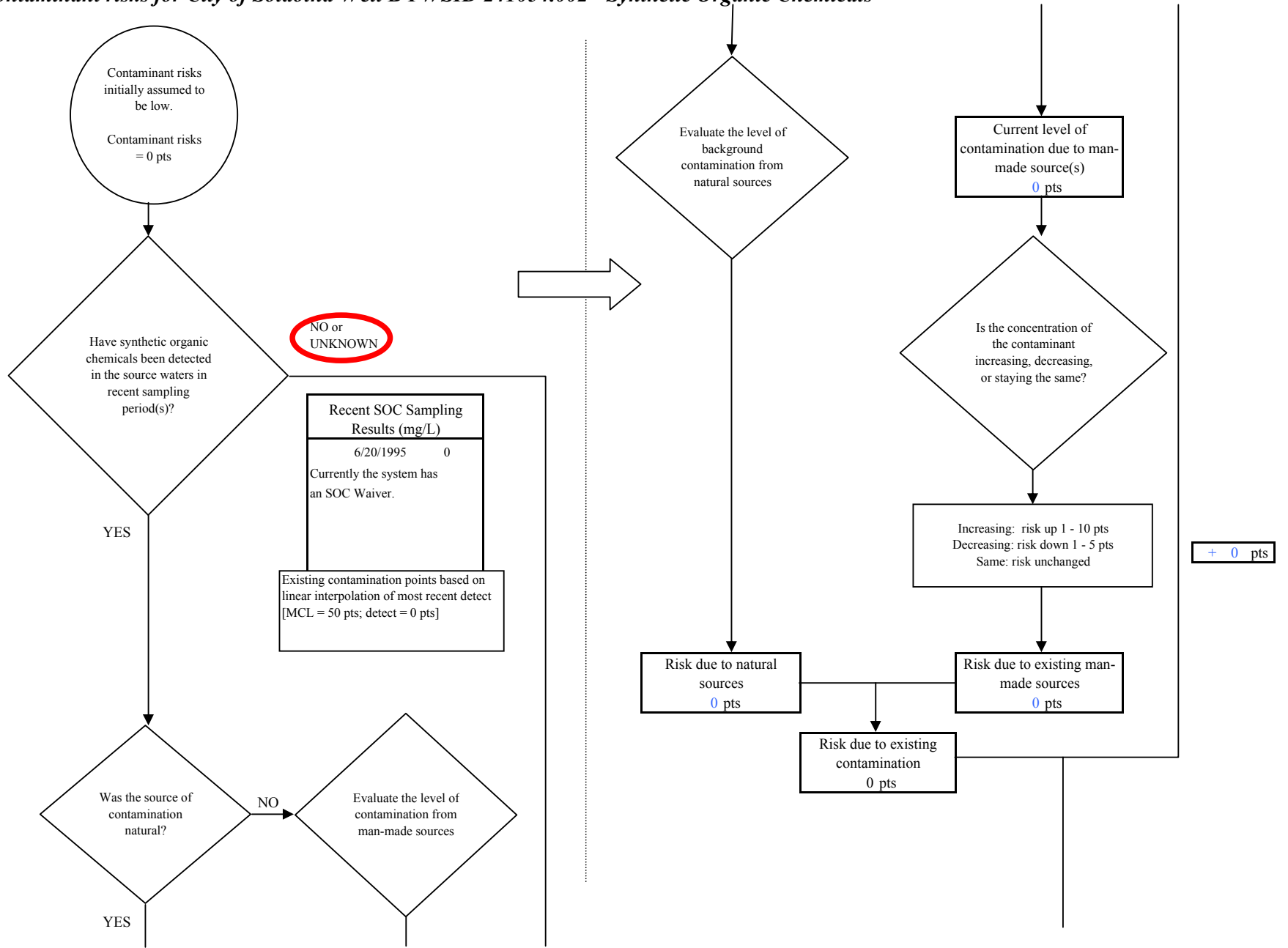


Chart 11. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Synthetic Organic Chemicals

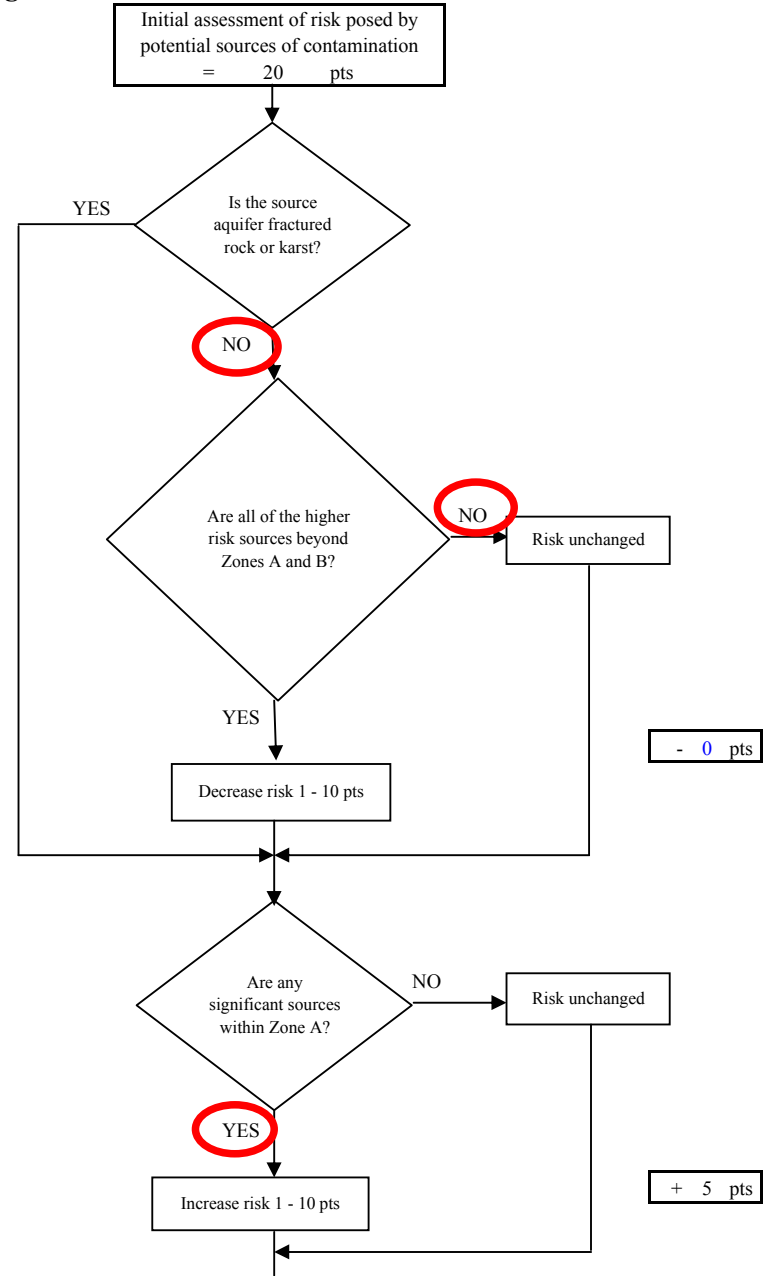
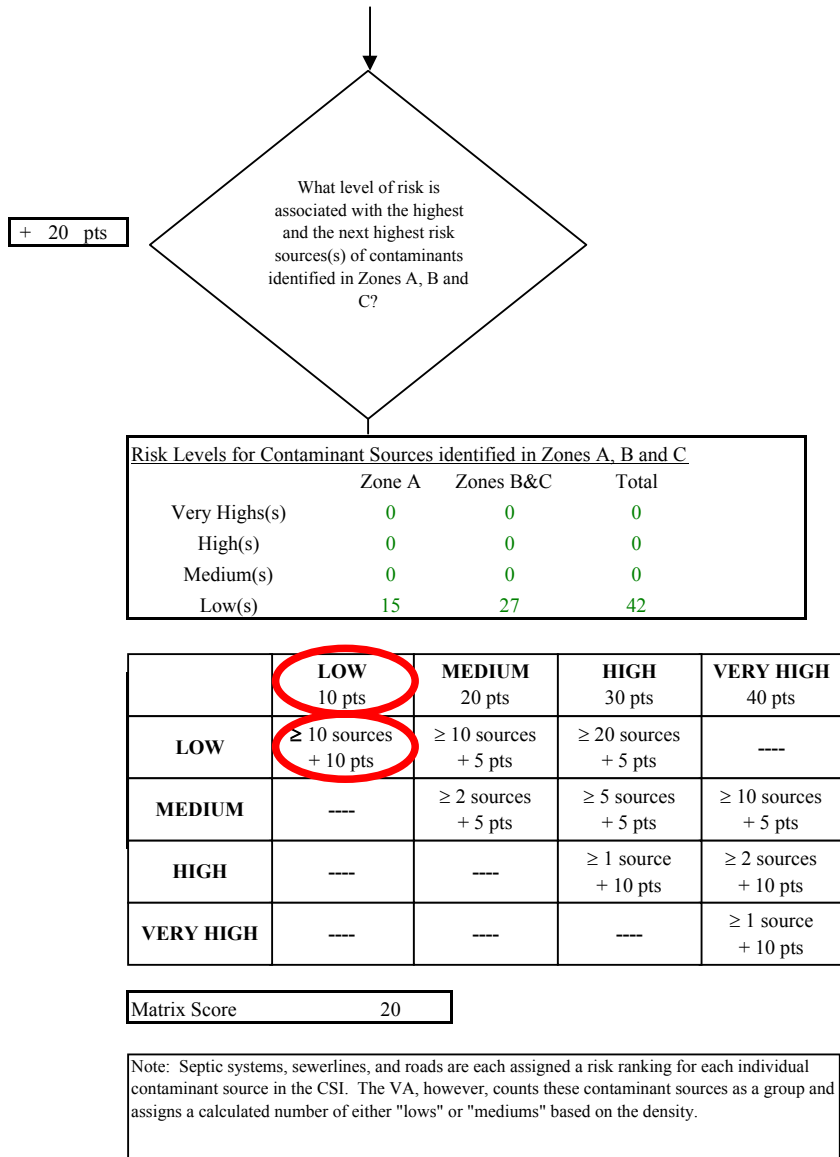


Chart 11. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Synthetic Organic Chemicals

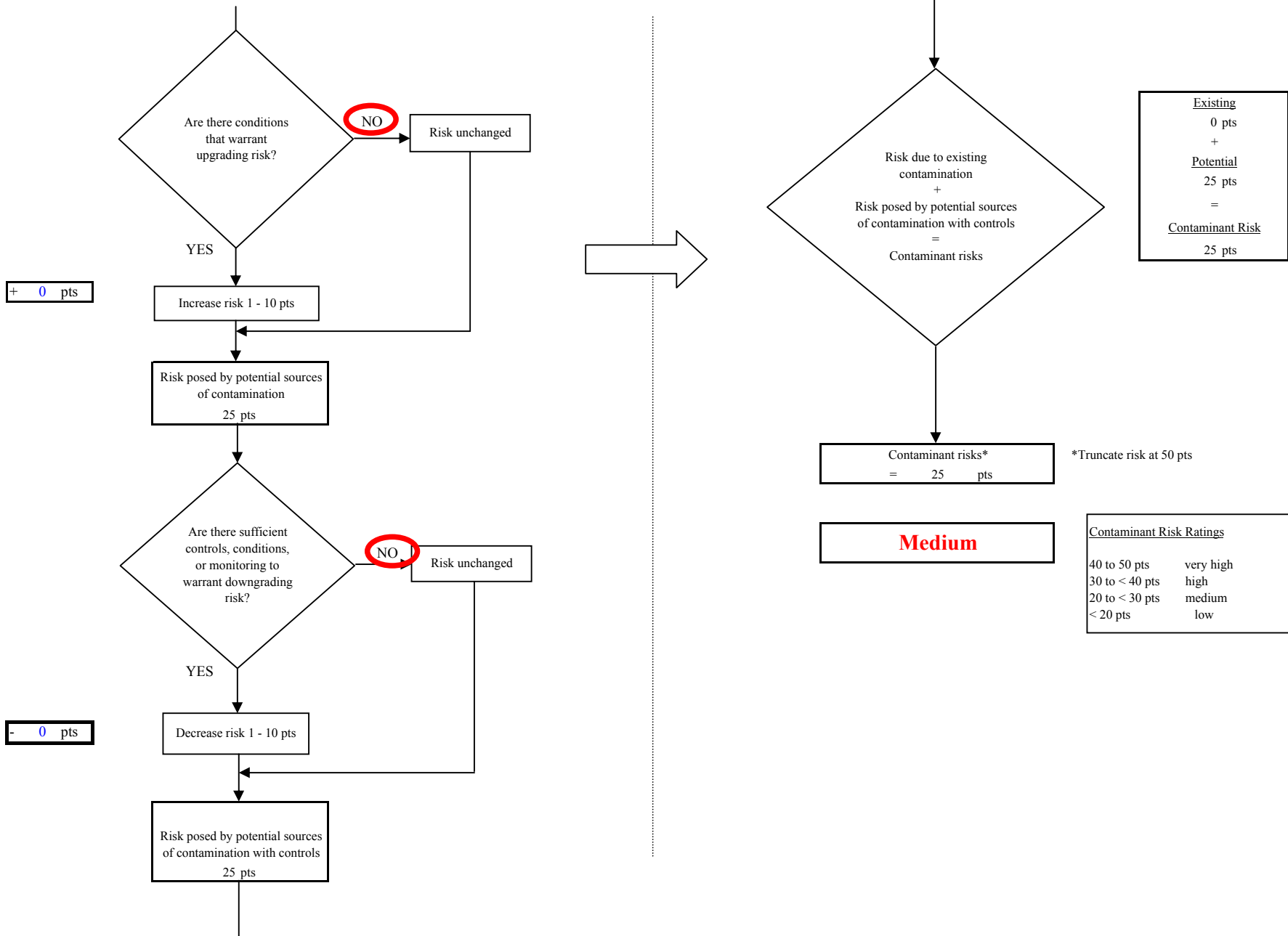


Chart 12. Vulnerability analysis for City of Soldotna-Well B PWSID 241054.002 - Synthetic Organic Chemicals

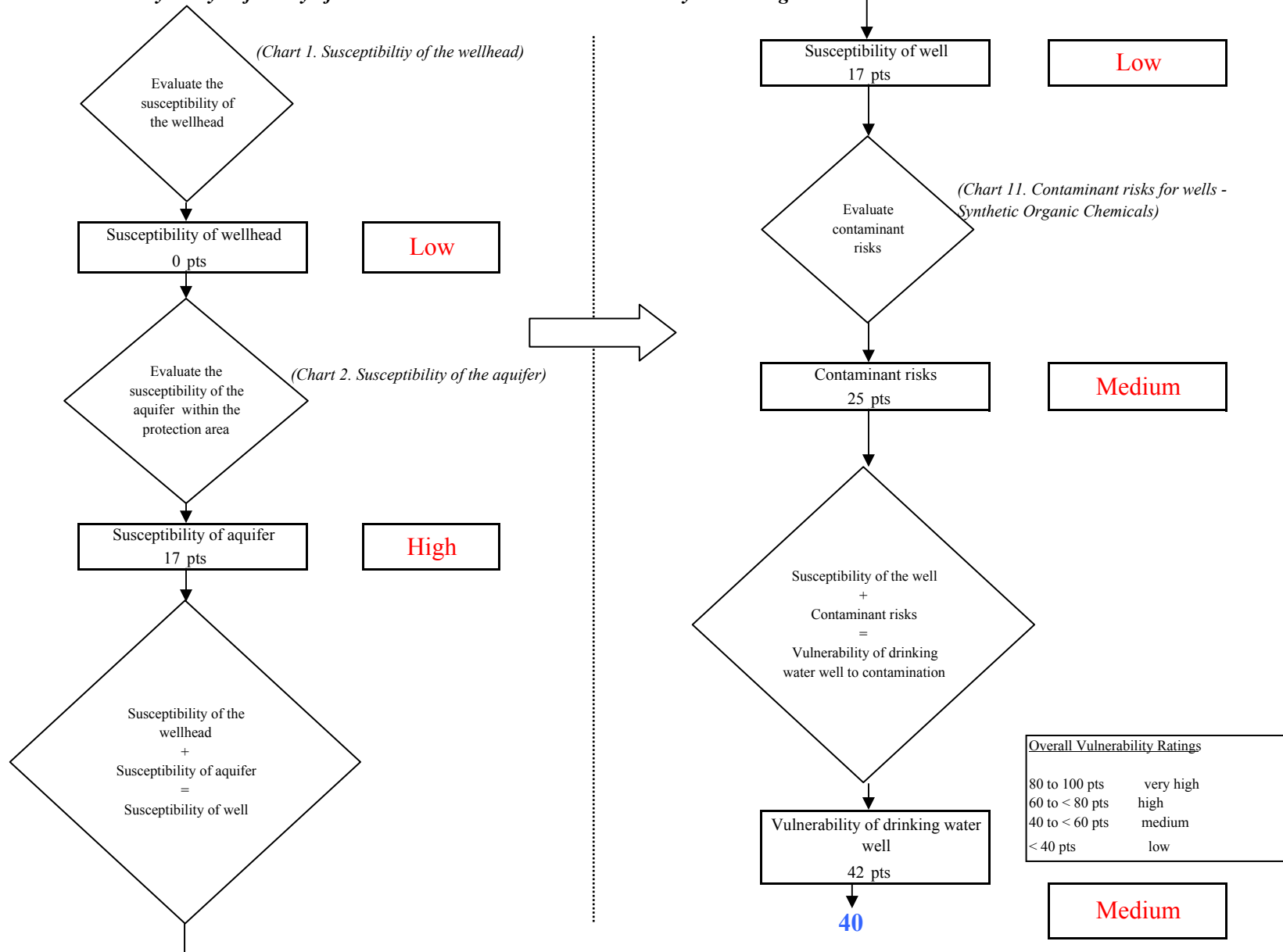


Chart 13. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Other Organic Chemicals

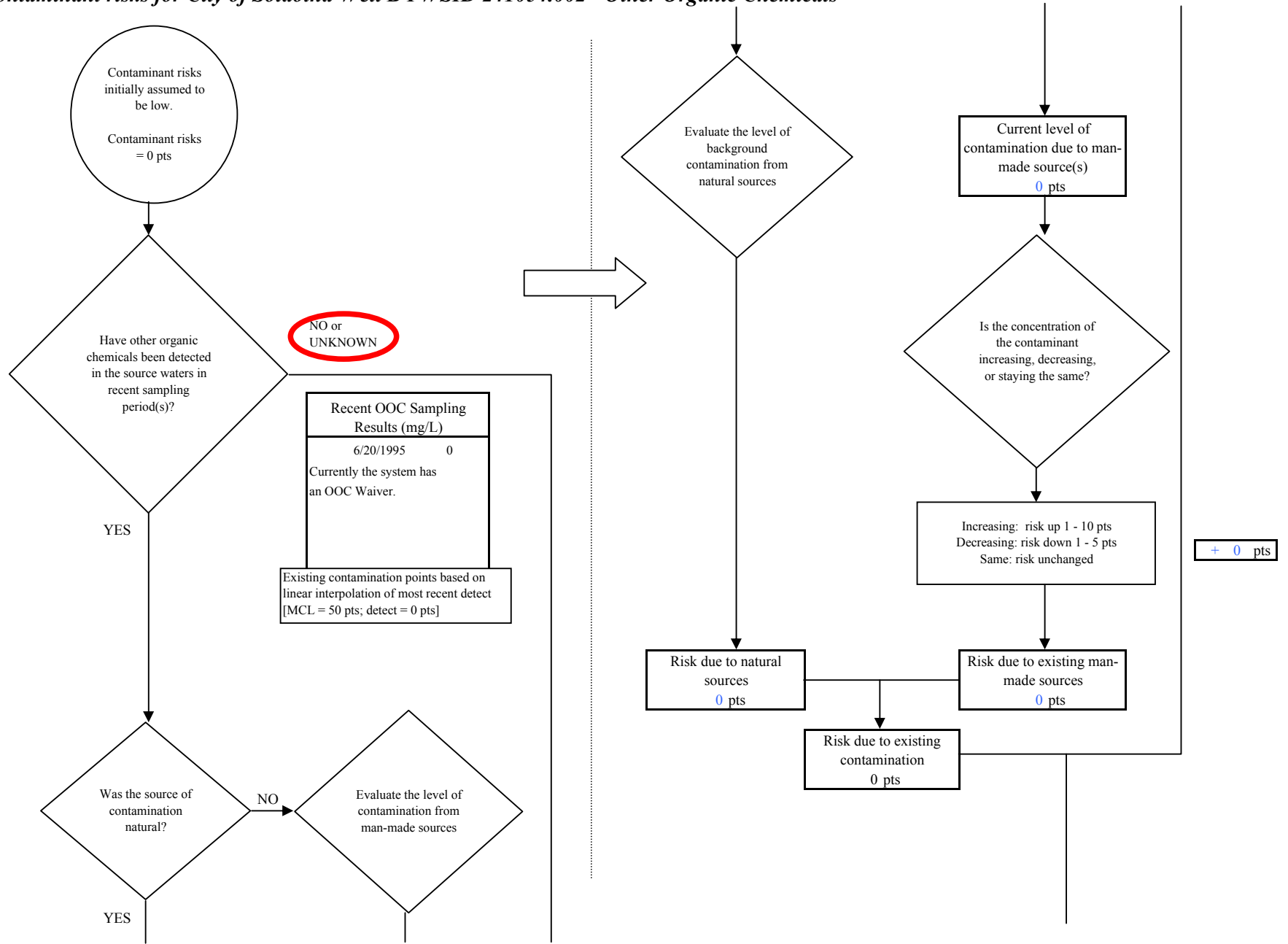


Chart 13. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Other Organic Chemicals

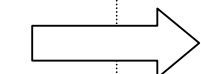
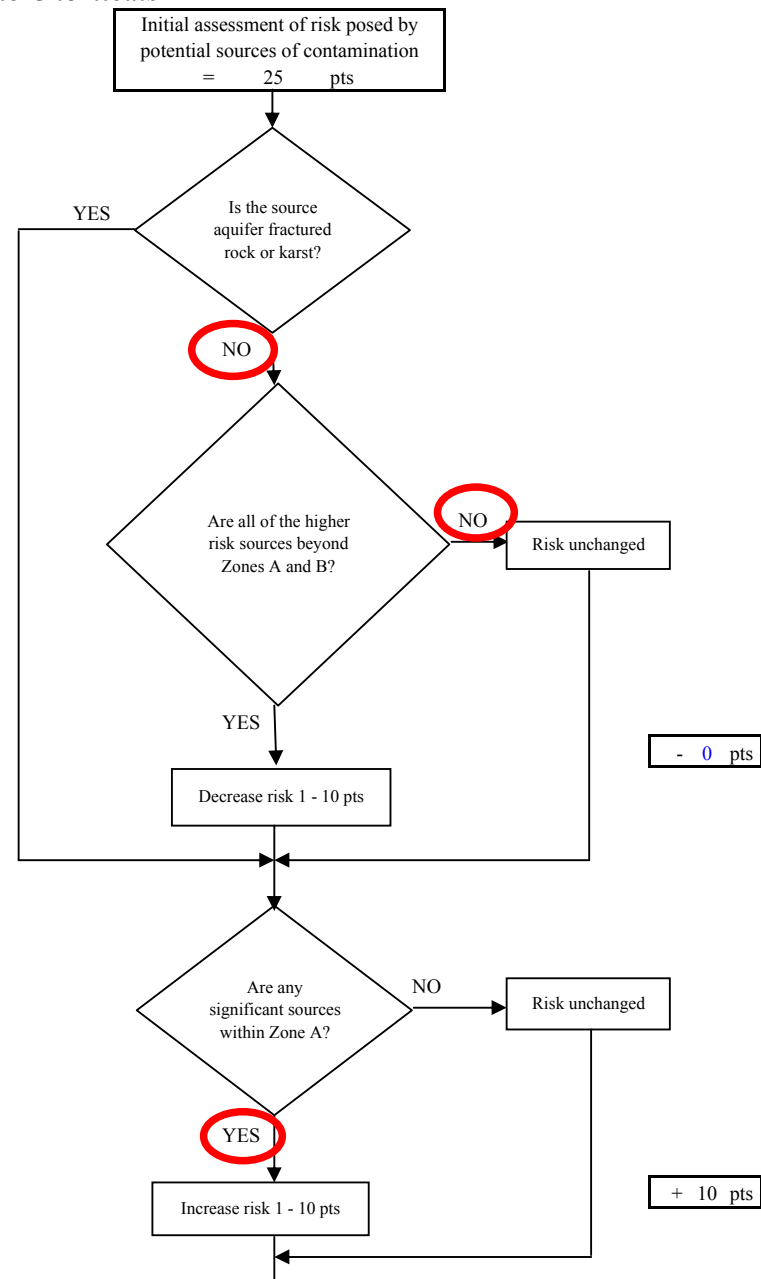
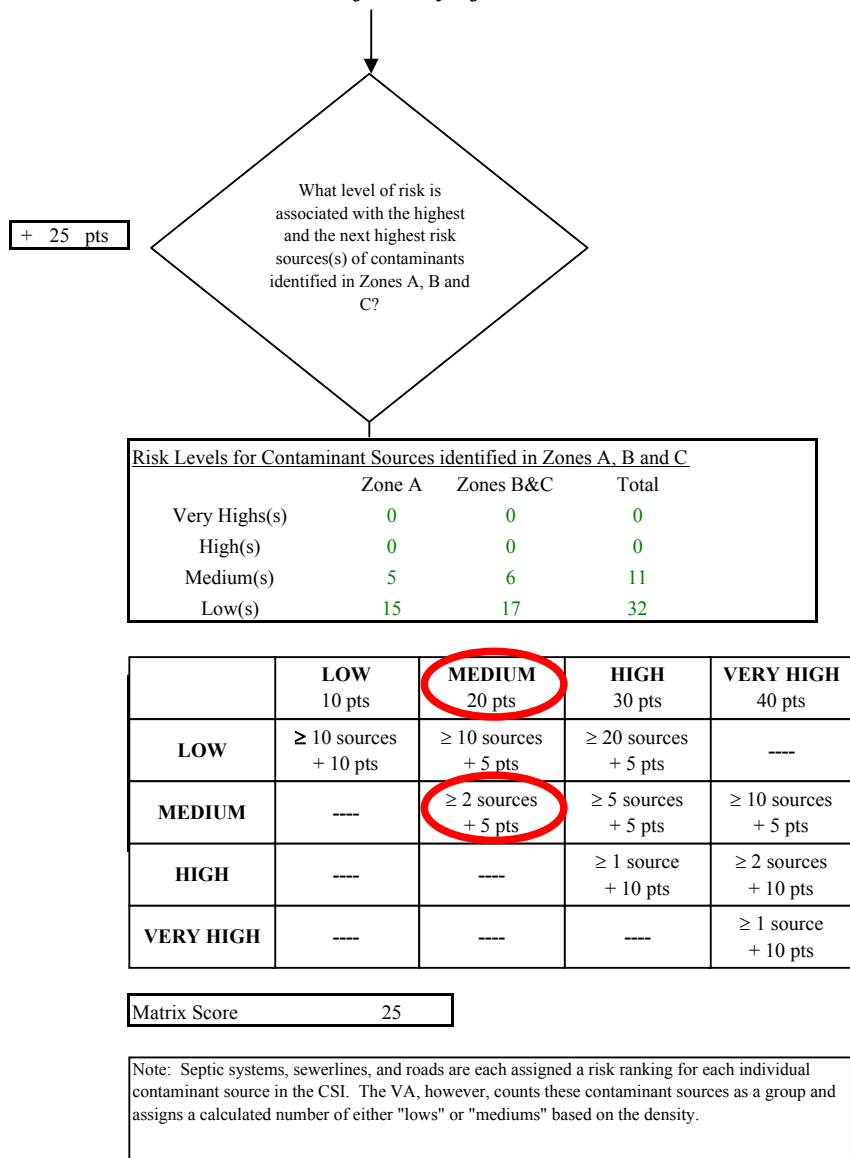


Chart 13. Contaminant risks for City of Soldotna-Well B PWSID 241054.002 - Other Organic Chemicals

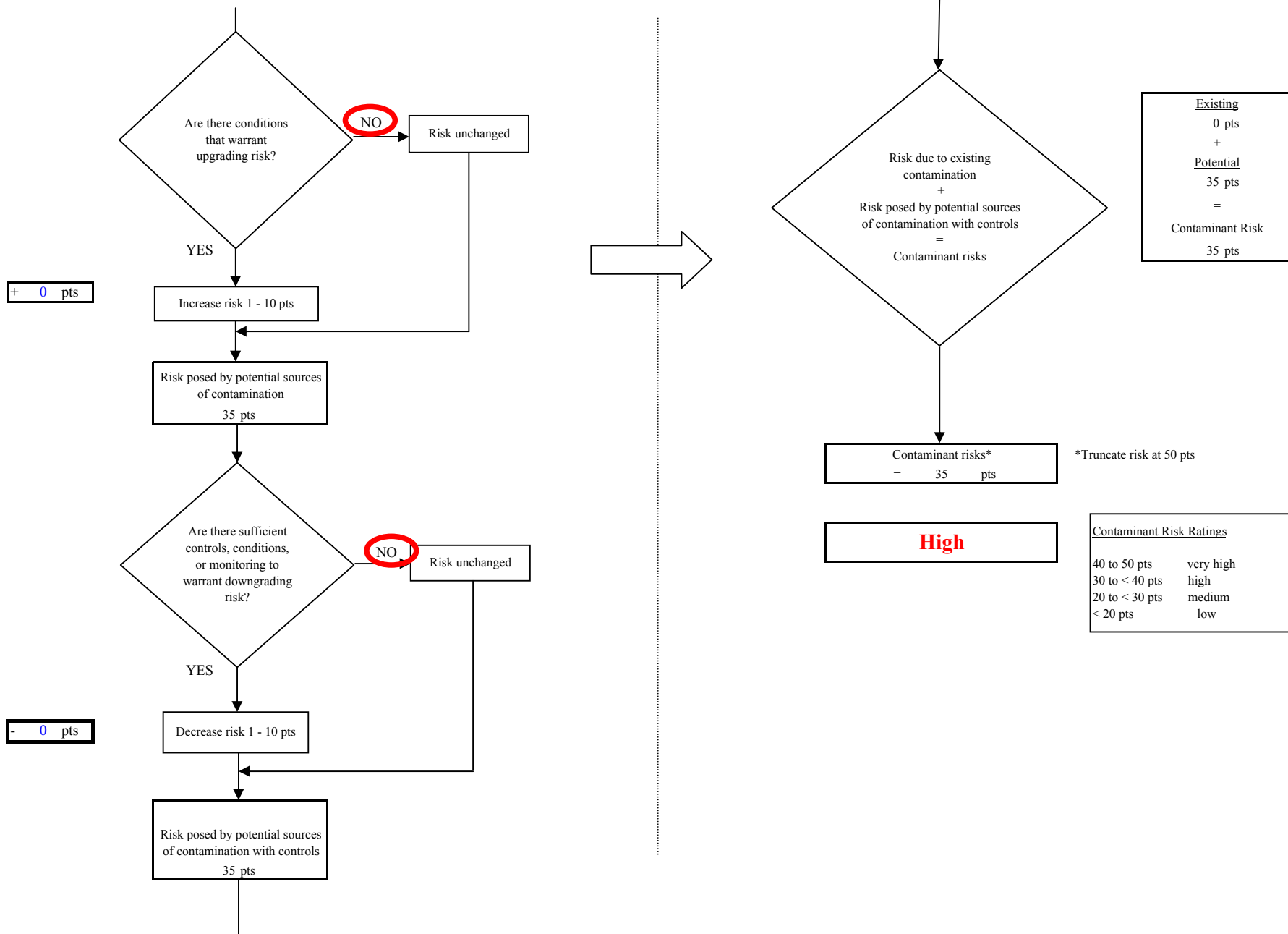


Chart 14. Vulnerability analysis for City of Soldotna-Well B PWSID 241054.002 - Other Organic Chemicals

