Source Water Assessment

A Hydrogeologic Susceptibility and Vulnerability Assessment for the Centre Park I (Center Park Apartments) Drinking Water System, Delta Junction, Alaska

PWSID # 371532.001

June 2004

DRINKING WATER PROTECTION PROGRAM REPORT 1384
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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Drinking Water Protection Program
Alaska Department of Environmental Conservation

EXECUTIVE SUMMARY

The Centre Park Apartments Public Water System (PWS) has one well. Well construction details are unavailable however, it is assumed the well (PWS No. 371532.001) has been used as a drinking water source since it was drilled in 1985.

The well is a Class A (community and non-transient non-community) water system located at 2496 4th Street in Delta Junction, Alaska. Available records indicate that the system has a 400 gallon storage tank. This system operates year round and serves approximately 21 residents through 4 service connections. The wellhead received a susceptibility rating of **Low** and the aquifer received a susceptibility rating of **High**. Combining these two ratings produce a **Low** rating for the natural susceptibility of the well.

Identified potential and current sources of contaminants for the public drinking water source include: large capacity septic systems, fuel tanks and DEC recognized contaminated sites. A detailed inventory can be found in Table 1 of Appendix B. These identified potential and existing sources of contamination are considered sources of bacteria and viruses, nitrates and/or nitrites, volatile organic chemicals, heavy metals, cyanide and other inorganic chemicals, synthetic organic chemicals, and other organic chemicals contaminant categories.

Overall, the well received a vulnerability rating of **High** for bacteria and viruses, nitrates and nitrites, volatile organic chemicals, heavy metals, cyanide and other inorganic chemicals, synthetic organic chemicals, and other organic chemicals.

PUBLIC DRINKING WATER SYSTEM

The Centre Park Apartments PWS well is a Class A (community/non-transient/non-community) public water system. The system is located at 2496 4th Street in Delta Junction, Alaska (Sec. 23, T010S, R010E, Fairbanks Meridian, see Map A of Appendix A). The community of Delta Junction is located at the convergence of the Richardson and Alaska Highways, approximately 95 miles southeast of Fairbanks. The community has a population of 984 (ADCED, 2003). Total annual precipitation in Delta Junction is 12 inches, including approximately 37 inches of snowfall. Temperatures can be as extreme as -63 to 92°F.

The community of Delta Junction obtains most of their water supply from individual wells. Septic systems are used for sewage disposal (ADCED, 2003). Delta Junction residents rely on the Golden Valley Electric Association for electricity, which is powered by coal and diesel as a backup. Refuse is collected Delta Sanitation, a private firm, and is deposited in the City-owned landfill.

Construction details were not available in ADEC records, and it is assumed based on a nearby well that the depth of the well is 185 feet below the ground surface. It is assumed that the well is screened in an unconfined aquifer. The well is not located within a floodplain.

Information acquired from a June 1999 sanitary survey for the PWS indicated that the land surface was sloped away from the well. Generally, land surfaces that slope away from the wellhead promote surface water drainage, which reduces the potential of contaminant migration down the well casing annulus. It is assumed based on the date the system began operation (1985) that the well is not grouted. Proper grouting provides added protection against contaminants traveling along the well casing annulus and into source waters

Big Delta lies along the Richardson Highway near the junction of the Delta River and Jarvis Creek. The area is in the eastern reaches of the Tanana-Kuskokwim Lowland, a broad depression bordering the Alaska Range on the north.

Granodiorites and quartz monzonites are exposed in the southern part of the Delta-Clearwater area. These rocks are in intrusive contact with pelitic schist to the south and west.

Coalescing alluvial fans composed of moderately well-sorted silt, sand and gravel are the principal surficial deposits in the Big Delta area. The thickness of the unconsolidated material is estimated to be as much as 760 meters. Not all of this thickness is alluvium; however, because alluvial deposits are typically not deposited below sea level. It is likely that deep sediments in the area are poorly sorted lacustrine, glacial, or marine sediments of low permeability. The area was glaciated in at least three episodes, which is evidenced by the presence of terminal moraines in the Delta and Gerstle River valleys and in the valleys of several small creeks draining the north face of the Alaska Range.

Five major soil types exist in the Big Delta area: Salchaket, Jarvis, Nenana, Chena, and Tanana. Salchaket is a deep, somewhat poorly drained, fine sandy loam soil and is typically found on the alluvial plains and terraces of the Delta River. The soil forms in the overbank deposits of flowing water and is underlain by a stratum of gravelly cobble. Jarvis is also a very fine sandy silt loam. It is moderately deep and is stratified over a gravelly substrate. This soil is found along Jarvis Creek and includes both loess and overbank flood deposits. Nenana silt loam is a sandy soil that typically forms in sand dunes occupying the site of former floodplains. Chena is a very fine soil occurring as a thin mantle of silt loam overlying a substratum of gravelly sand. This type of soil occupies nearly level terrain near Big Delta and is well drained. Tanana is a silt loam formed in local alluvial sediments and is poorly drained. This soil typically occurs in vegetated areas in the presence of permafrost.

The area lies in the discontinuous permafrost zone. There is a noticeable absence of permafrost directly adjacent to and beneath the Delta and Gerstle Rivers and Jarvis Creek (Nelson, 1995).

DRINKING WATER PROTECTION AREA

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

The most probable area for contamination to reach the drinking water well is the area that contributes water to the well, the groundwater recharge area. This area is designated as the drinking water protection area (DWPA). Because releases of contaminants within the protection area are most likely to impact the drinking water well, this area will serve as the focus for voluntary protection efforts. An analytical calculation was used to determine the size and shape of the DWPA for the Centre Park Apartments PWS. 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 the 2 year time-of-travel
C	Less Than the 5 year time-of-travel
D	Less than the 10 year time-of-travel

The DWPA for the Centre Park Apartments PWS was determined using an analytical calculation and includes Zones A, B, C, and D (See Map A 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 Centre Park Apartments PWS 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 C 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 7 in Appendix B contain the ranking of potential and existing sources of contamination with respect to bacteria and viruses, nitrates and/or nitrites, volatile organic chemicals, heavy metals, cyanide and other inorganic chemicals, synthetic organic chemicals, and other organic chemicals.

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

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

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

+

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

=

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

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

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

It is assumed that the Centre Park Apartments PWS's water well is completed in an unconfined aquifer. Unconfined aquifers are more susceptible to potential groundwater quality impacts posed by the migration of surface water contaminants downward from the surface. Table 2 shows the susceptibility scores and ratings for this PWS.

Table 2. Susceptibility

	Score	Rating
Susceptibility of the Wellhead	0	Low
Susceptibility of the Aquifer	15	High
Natural Susceptibility	15	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:

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

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

Table 3. Contaminant Risks

Category	Score	Rating
Bacteria and Viruses	50	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	50	Very High
Other Organic Chemicals	50	Very High

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:

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

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

Table 4. Overall Vulnerability

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

Bacteria and Viruses

The contaminant risk for bacteria and viruses is **Very High**. The risk is primarily attributed to the presence of several large-capacity injection wells in Zone A. Numerous other potential contaminant sources are also found within the protection area (see Table 2 – Appendix B).

Coliforms (a bacteria) are found naturally in the environment and although they aren't necessarily a health threat, they are an indicator of other potentially harmful bacteria in the water, more specifically, fecal coliforms and E. coli, which only come from human and animal fecal waste. Harmful bacteria can cause diarrhea, cramps, nausea, headaches, or other symptoms (EPA, 2002). Positive samples increase the overall vulnerability of the drinking water source, indicating that the source is susceptible to bacteria and virus contamination.

No positive bacteria counts have been reported in recent (within five years) sampling events (See Chart 3 – Contaminant Risks for Bacteria and Viruses in Appendix D). Only a small amount of bacteria and viruses are required to endanger public health.

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 **High**.

Nitrates and Nitrites

The contaminant risk for nitrates and nitrites is **Very High**. The risk to this source of public drinking water is primarily attributed to the presence of a several large-capacity septic systems in Zone A. Numerous other potential contaminant sources are also found within the protection area (see Table 3 – Appendix B).

Nitrates are very mobile, moving at approximately the same rate as water. The sampling history for this well indicates that low levels of nitrates have been detected in recent sampling events, however they do not exceed its MCL of 10mg/L. Nitrate concentrations in uncontaminated groundwater are typically less than 2 mg/L; therefore, nitrate concentrations above 2 mg/L may be indicative of man-made sources (See Chart 5 - Contaminant Risks for Nitrates and/or Nitrites in Appendix D).

Nitrate levels are often derived from the decomposition of organic matter in soils. Consequently, trace amounts of nitrates may be attributed to the presence of large-capacity septic systems in the vicinity.

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

The contaminant risk for volatile organic chemicals is **Very High**. The risk is primarily attributed to the presence of several underground diesel and gasoline tanks in Zone A. Numerous other potential contaminant sources are also found within the protection area (see Table 4 – Appendix B).

No recent sampling data was available in ADEC records for the Centre Park Apartments PWS (See Chart 7 – Contaminant Risks for Volatile Organic Chemicals in Appendix D).

Other possible sources of volatile organic chemicals include facilities with automobiles, residential areas, fuel tanks, and roads. See Table 4 in Appendix B for a complete listing.

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

Heavy Metals, Cyanide and Other Inorganic Chemicals

The contaminant risk for heavy metals, cyanide and other inorganic chemicals is **Very High**. The risk is primarily attributed to the presence of barium in recent sampling events and the presence of two leaking fuel storage tanks in Zone A. Numerous other potential contaminant sources are also found within the protection area (see Table 5 – Appendix B).

Based on review of recent sampling records for this PWS, low levels of barium and copper, and moderate levels of lead have been detected; however they have not exceeded their MCLs of 2, 1.3 or .015 mg/L, respectively (see Chart 9 – Contaminant Risks for Heavy Metals, Cyanide, and Other Inorganic Chemicals in Appendix D).

The reported concentrations of copper and lead are likely attributed to the water treatment/conveyance system.

Barium is a lustrous, machinable metal, which exists in nature only in ores containing mixtures of elements. It is used in making a wide variety of electronic components, in metal alloys, bleaches, dyes, fireworks, ceramics and glass. In particular, it is used in well drilling operations where it is directly released into the ground (EPA, 2002).

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

Synthetic Organic Chemicals

The contaminant risk for synthetic organic chemicals is **Very High**. The risk is primarily attributed to two parcels of land with agricultural land use in Zone A. Numerous other potential contaminant sources are also found within the protection area (see Table 6 – Appendix B).

No recent sampling data was available in ADEC records for the Centre Park Apartments PWS (See Chart 11 – Contaminant Risks for Synthetic Organic Chemicals in Appendix D).

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 **High**.

Other Organic Chemicals

The contaminant risk for other organic chemicals is **Very High**. The risk is primarily attributed to an electric power generation facility and a bulk fuel station in Zone A. Several other potential contaminant sources are also found within the protection area (see Table 7 – Appendix B).

No recent sampling data was available in ADEC records for the Centre Park Apartments PWS (See Chart 13 – Contaminant Risks for Other Organic Chemicals in Appendix D).

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

Using the Source Water Assessment

This assessment of contaminant risks can be used as a foundation for local voluntary protection efforts as well as a basis for the continuous efforts on the part of the community of Delta Junction to protect public health. It is anticipated that Source Water Assessments will be updated every five years to reflect any changes in the vulnerability and/or susceptibility of the drinking water source.

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APPENDIX A

Drinking Water Protection Area Location Map
(Map A)

APPENDIX B

Contaminant Source Inventory and Risk Ranking (Tables 1-7)

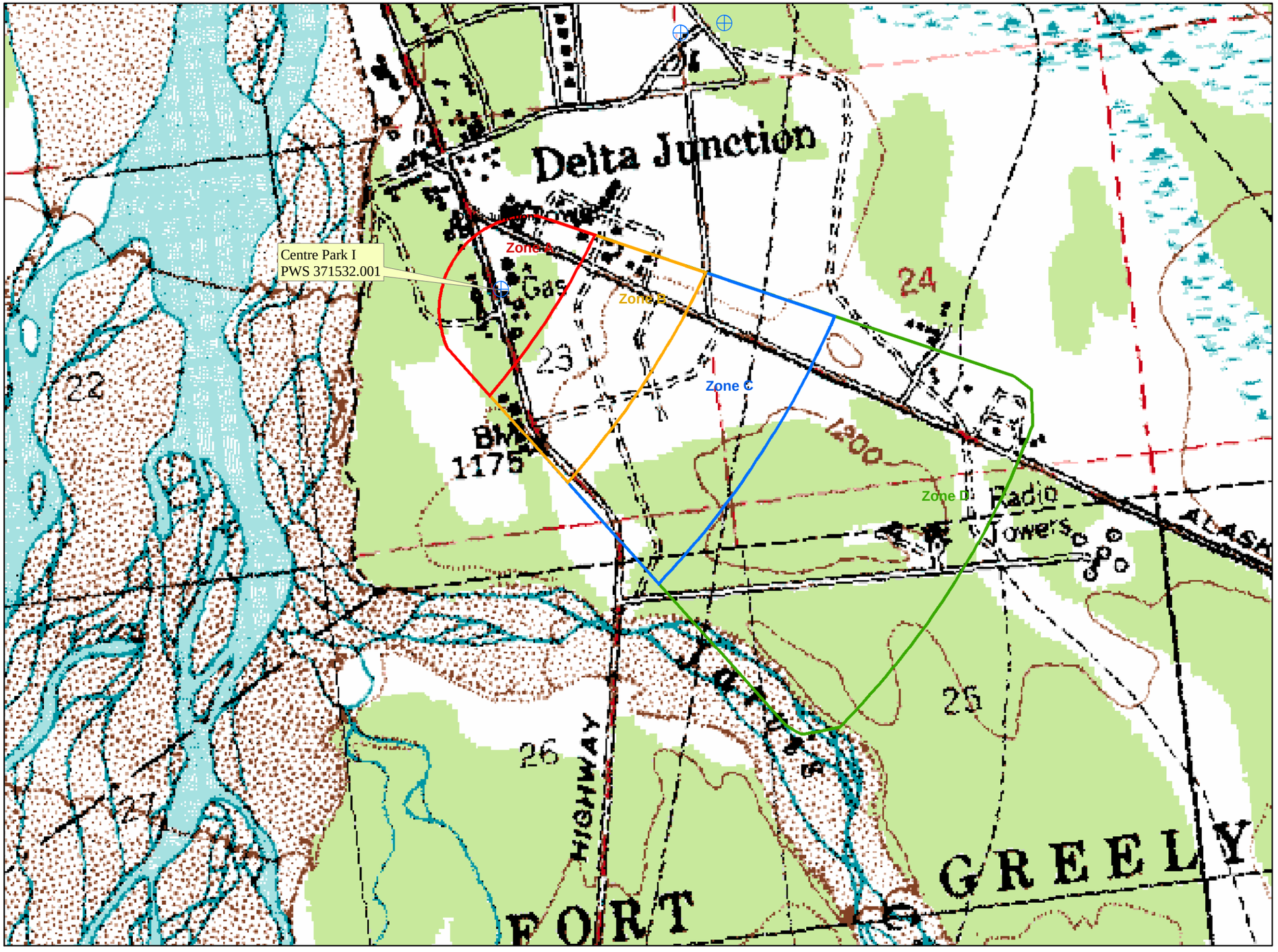
APPENDIX C

Drinking Water Protection Area
and Potential and Existing Contaminant Sources
(Map C)

APPENDIX D

Vulnerability Analysis for Public Drinking Water Source (Charts 1-14)

Public Water Well System for PWS #371532.001 Centre Park I



LEGEND

Public Water System Well

Hydrography/Physical

- Parcels
- Stream
- Lake or Pond
- Contours

Transportation

- Primary Route (Class 1)
- Secondary Route (Class 2)
- Road (Class 3)
- Road (Class 4)
- Road (Class 5, Four-wheel drive)

Groundwater Protection Zones

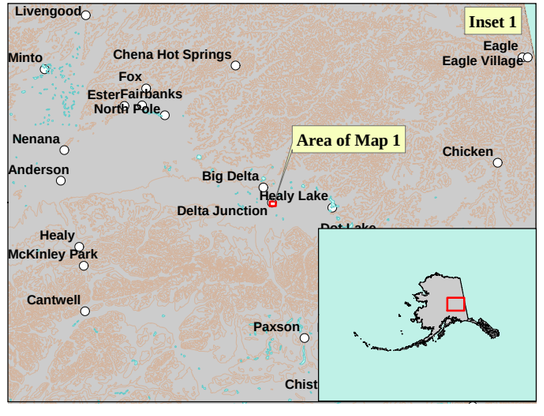
- Zone A Protection Area– Several Months Travel Time
- Zone B Protection Area– 2 Years Travel Time
- Zone C Protection Area– 5 Years Travel Time
- Zone D Protection Area– 10 Years Travel Time

Data Sources:
Contaminant Sources, Public Water System Wells, Contours
Alaska Department of Environmental Conservation (ADEC)

All other data:
United States Geological Survey (USGS)

Drinking Water Protection Areas based on "Alaska Drinking Water Protection Program - Guidance Manual for Class A Public Water Systems" published by ADEC

URS Corporation does not guarantee the accuracy or validity of the data provided.



0 0.1 0.2 0.4 0.6 0.8 Miles

Centre Park I
PWS 371532.001
Appendix A Map A

Table 1

Contaminant Source Inventory for

Centre Park I

PWSID 371532.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Cropland	A02	A02-01	A	C	ALASKA FARMERS COOPERATIVE,INC.
Cropland	A02	A02-02	A	C	AGRICULTURAL/FORESTRY EXPERIMENT
Gasoline stations (without repair shop)	C15	C15-01	A	C	Delta Texaco
Gasoline stations (without repair shop)	C15	C15-02	A	C	OK FUEL CO.
Domestic wastewater treatment plant disposal ponds/lagoons	D02	D02-01	A	C	Assume one sewage disposal pond/lagoon in Zone A
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-01	A	C	BAY HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-02	A	C	BIG D BAR
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-03	A	C	DIEHLS SHOPPING CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-04	A	C	CENTRE DEV-CENTRE PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-05	A	C	CHEROKEE TWO
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-06	A	C	CLUB EVERGREEN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-07	A	C	DELTA SENIOR COMMUNITY CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-08	A	C	DELTA FOOD MART AND DELI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-09	A	C	DELTA/GREELY SD - DELTA SCHOOL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-10	A	C	CS HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-11	A	C	DELTA DINER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-12	A	C	DELTA CITY PARK

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-13	A	C	FT GREELY LODGE/BIG TOP DRIVE
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-14	A	C	DELTA VISITORS CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-15	A	C	STAN ORCUTT APTS
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-16	A	C	LIVING WORD ACADEMY - MI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-17	A	C	TOMS INN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-18	A	C	KELLYS MOTEL/WINDTUNNEL
Septic systems (serves one single-family home)	R02	R02-01	A	C	Assume 50 or less individual septic systems in Zone A
Tanks, heating oil, residential (above ground)	R08	R08-01	A	C	Assume 50 or less residential heating oil tanks in Zone A
Tanks, diesel (underground)	T08	T08-01	A	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-02	A	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-03	A	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-04	A	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-05	A	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-06	A	C	Delta Texaco
Tanks, diesel (underground)	T08	T08-07	A	C	Delta Texaco
Tanks, diesel (underground)	T08	T08-08	A	C	Delta Texaco
Tanks, diesel (underground)	T08	T08-09	A	C	DELTA MOTORS
Tanks, diesel (underground)	T08	T08-10	A	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Tanks, diesel (underground)	T08	T08-11	A	C	OK FUEL CO.
Tanks, diesel (underground)	T08	T08-12	A	C	DELTA JUNCTION
Tanks, diesel (underground)	T08	T08-13	A	C	AGRICULTURAL/FORESTRY EXPERIMENT

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Closed tanks, diesel (underground)	T09	T09-01	A	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-02	A	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-03	A	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-04	A	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-05	A	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-06	A	C	PUMP STATION #9
Closed tanks, diesel (underground)	T09	T09-07	A	C	PUMP STATION #10
Tanks, gasoline (underground)	T12	T12-01	A	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-02	A	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-03	A	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-04	A	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-05	A	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-06	A	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-07	A	C	Delta Texaco
Tanks, gasoline (underground)	T12	T12-08	A	C	Delta Texaco
Tanks, gasoline (underground)	T12	T12-09	A	C	DELTA MOTORS
Tanks, gasoline (underground)	T12	T12-10	A	C	DELTA MOTORS
Tanks, gasoline (underground)	T12	T12-11	A	C	DELTA MOTORS
Tanks, gasoline (underground)	T12	T12-12	A	C	OK FUEL CO.
Tanks, gasoline (underground)	T12	T12-13	A	C	AGRICULTURAL/FORESTRY EXPERIMENT
Closed tanks, gasoline (underground)	T13	T13-01	A	C	FORT GREELY
Closed tanks, gasoline (underground)	T13	T13-02	A	C	PUMP STATION #9
Closed tanks, gasoline (underground)	T13	T13-03	A	C	PUMP STATION #10

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Closed tanks, gasoline (underground)	T13	T13-04	A	C	ADNR - DIV OF FORESTRY, DELTA AREA
Tanks, heating oil, nonresidential (underground)	T16	T16-01	A	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-02	A	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-03	A	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-04	A	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-05	A	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-06	A	C	OK FUEL CO.
Tanks, heating oil, nonresidential (underground)	T16	T16-07	A	C	Delta Greely Learning Ctr/Delta School District
Tanks, heating oil, nonresidential (underground)	T16	T16-08	A	C	OK FUEL CO.
Closed tanks, heating oil, nonresidential (underground)	T17	T17-01	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-02	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-03	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-04	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-05	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-06	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-07	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-08	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-09	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-10	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-11	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-12	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-13	A	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-14	A	C	FORT GREELY

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Closed tanks, heating oil, nonresidential (underground)	T17	T17-15	A	C	FORT GREELY
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-01	A	C	FORT GREELY
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-02	A	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Wastewater Holding Tank	T22	T22-01	A	C	FORT GREELY
Wastewater Holding Tank	T22	T22-02	A	C	FORT GREELY
Wastewater Holding Tank	T22	T22-03	A	C	FORT GREELY
Wastewater Holding Tank	T22	T22-04	A	C	FORT GREELY
Wastewater Holding Tank	T22	T22-05	A	C	FORT GREELY
Wastewater Holding Tank	T22	T22-06	A	C	FORT GREELY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-01	A	C	Oklahoma Range A-10 Site. Reckey: 199531X128301. Status: Inactive. Site of crash of A-10 jet from Eielson AFB on 10/10/95. Site is on Fort Greely Oklahoma bombing range. DRO of 9,490 ppm remain on site.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-02	A	C	ADNR - Asphalt Drum Site. Reckey: 1990330115201. Status: Inactive. 16 corroded drums containing liquid asphalt leaking on the ground. Extent of contamination and threat to human health unknown.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-03	A	C	Fort Greely SMDC Parcel 113 POL. Reckey: 199633X127501. Status: Active. Site 113 is reported as an old petroleum storage area. DRO is above migration to groundwater. Diesel fuel detected in soil during BRAC site characterization.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-04	A	C	Fort Greely SMDC Parcel 112 Salvage. Reckey: 199633X927501. Status: Active. Site 112 was formerly a fenced salvage yard. Contaminants of concern include: GRO, DRO, RRO, VOCs, SVOCs, and pesticides.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-05	A	C	Fort Greely SMDC Parcel 77 Bldg 340. Reckey: 199633X127503. Status: Active. DRO above migration to groundwater.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-06	A	C	Fort Greely SMDC Parcel 76 Bldg 352. Reckey: 199633X927502. Status: Active. Diesel and SVOC contamination under Building 351. 100 gallons of diesel fuel spilled was reported sometime in 1992.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-01	A	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-02	A	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-03	A	C	FORT GREELY

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-04	A	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-05	A	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-06	A	C	Delta Texaco
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-07	A	C	DELTA MOTORS
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-08	A	C	FAA - DELTA JUNCTION
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-09	A	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-01	A	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-02	A	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-03	A	C	CRAIG TAYLOR EPUIPMENT COMPANY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-04	A	C	ALASKA FARMERS COOPERATIVE,INC.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-05	A	C	DELTA JUNCTION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-06	A	C	ADNR - DIV OF FORESTRY, DELTA AREA
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	C	Asphalt Drum Site
Petroleum product bulk station/terminals	X11	X11-01	A	C	Assume one petroleum product bulk station/terminal in Zone A
Government vehicle maintenance facilities	X19	X19-01	A	C	FORT GREELY
Government vehicle maintenance facilities	X19	X19-02	A	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Highways and roads, dirt/gravel	X24	X24-01	A	C	Assume 1-20 roads in Zone A
Electric power generation (fossil fuels)	X36	X36-01	A	C	FORT GREELY
Pump Stations (oil and gas)	X43	X43-01	A	C	PUMP STATION #9
Pump Stations (oil and gas)	X43	X43-02	A	C	PUMP STATION #10
Highways and roads, dirt/gravel	X24	X24-02	B	C	Assume 1-20 roads in Zone B
Highways and roads, dirt/gravel	X24	X24-03	C	C	Assume 1-20 roads in Zone C
Pipelines (oil and gas)	X28	X28-01	C	C	Pipeline

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Map Number*	*Comments*
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19	D	C	BERGSTADS TRAILER COURT
Pipelines (oil and gas)	X28	X28-02	D	C	Pipeline

Table 2

Contaminant Source Inventory and Risk Ranking for Centre Park I

Sources of Bacteria and Viruses

PWSID 371532.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Domestic wastewater treatment plant disposal ponds/lagoons	D02	D02-01	A	High	C	Assume one sewage disposal pond/lagoon in Zone A
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-01	A	High	C	BAY HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-02	A	High	C	BIG D BAR
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-03	A	High	C	DIEHLS SHOPPING CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-04	A	High	C	CENTRE DEV-CENTRE PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-05	A	High	C	CHEROKEE TWO
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-06	A	High	C	CLUB EVERGREEN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-07	A	High	C	DELTA SENIOR COMMUNITY CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-08	A	High	C	DELTA FOOD MART AND DELI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-09	A	High	C	DELTA/GREELY SD - DELTA SCHOOL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-10	A	High	C	CS HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-11	A	High	C	DELTA DINER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-12	A	High	C	DELTA CITY PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-13	A	High	C	FT GREELY LODGE/BIG TOP DRIVE
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-14	A	High	C	DELTA VISITORS CENTER

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	D10-15	A	High	C	STAN ORCUTT APTS
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-16	A	High	C	LIVING WORD ACADEMY - MI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-17	A	High	C	TOMS INN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-18	A	High	C	KELLYS MOTEL/WINDTUNNEL
Septic systems (serves one single-family home)	R02	R02-01	A	Low	C	Assume 50 or less individual septic systems in Zone A
Wastewater Holding Tank	T22	T22-01	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-02	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-03	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-04	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-05	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-06	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-01	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-02	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-03	A	Low	C	CRAIG TAYLOR EPUIPMENT COMPANY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-04	A	Low	C	ALASKA FARMERS COOPERATIVE,INC.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-05	A	Low	C	DELTA JUNCTION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-06	A	Low	C	ADNR - DIV OF FORESTRY, DELTA AREA

Contaminant Source Inventory and Risk Ranking for Centre Park I

Sources of Bacteria and Viruses

Contaminant Source Type	***Contaminant Source ID***	***CS ID tag***	***Zone***	***Risk Ranking for Analysis***	***Map Number***	***Comments***
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Highways and roads, dirt/gravel	X24	X24-01	A	Low	C	Assume 1-20 roads in Zone A
Highways and roads, dirt/gravel	X24	X24-02	B	Low	C	Assume 1-20 roads in Zone B

Table 3

Contaminant Source Inventory and Risk Ranking for Centre Park I
Sources of Nitrates/Nitrites

PWSID 371532.001

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Cropland	A02	A02-01	A	High	C	ALASKA FARMERS COOPERATIVE,INC.
Cropland	A02	A02-02	A	High	C	AGRICULTURAL/FORESTRY EXPERIMENT
Domestic wastewater treatment plant disposal ponds/lagoons	D02	D02-01	A	High	C	Assume one sewage disposal pond/lagoon in Zone A
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-01	A	High	C	BAY HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-02	A	High	C	BIG D BAR
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-03	A	High	C	DIEHLS SHOPPING CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-04	A	High	C	CENTRE DEV-CENTRE PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-05	A	High	C	CHEROKEE TWO
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-06	A	High	C	CLUB EVERGREEN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-07	A	High	C	DELTA SENIOR COMMUNITY CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-08	A	High	C	DELTA FOOD MART AND DELI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-09	A	High	C	DELTA/GREELY SD - DELTA SCHOOL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-10	A	High	C	CS HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-11	A	High	C	DELTA DINER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-12	A	High	C	DELTA CITY PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-13	A	High	C	FT GREELY LODGE/BIG TOP DRIVE

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	D10-14	A	High	C	DELTA VISITORS CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-15	A	High	C	STAN ORCUTT APTS
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-16	A	High	C	LIVING WORD ACADEMY - MI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-17	A	High	C	TOMS INN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-18	A	High	C	KELLYS MOTEL/WINDTUNNEL
Septic systems (serves one single-family home)	R02	R02-01	A	Low	C	Assume 50 or less individual septic systems in Zone A
Wastewater Holding Tank	T22	T22-01	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-02	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-03	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-04	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-05	A	Low	C	FORT GREELY
Wastewater Holding Tank	T22	T22-06	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-01	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-02	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-03	A	Low	C	CRAIG TAYLOR EPUIPMENT COMPANY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-04	A	Low	C	ALASKA FARMERS COOPERATIVE,INC.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-05	A	Low	C	DELTA JUNCTION

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-06	A	Low	C	ADNR - DIV OF FORESTRY, DELTA AREA
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Highways and roads, dirt/gravel	X24	X24-01	A	Low	C	Assume 1-20 roads in Zone A
Highways and roads, dirt/gravel	X24	X24-02	B	Low	C	Assume 1-20 roads in Zone B
Highways and roads, dirt/gravel	X24	X24-03	C	Low	C	Assume 1-20 roads in Zone C
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-19	D	High	C	BERGSTADS TRAILER COURT

Table 4

Contaminant Source Inventory and Risk Ranking for Centre Park I
Sources of Volatile Organic Chemicals

PWSID 371532.001

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Gasoline stations (without repair shop)	C15	C15-01	A	High	C	Delta Texaco
Gasoline stations (without repair shop)	C15	C15-02	A	High	C	OK FUEL CO.
Domestic wastewater treatment plant disposal ponds/lagoons	D02	D02-01	A	Low	C	Assume one sewage disposal pond/lagoon in Zone A
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-01	A	Low	C	BAY HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-02	A	Low	C	BIG D BAR
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-03	A	Low	C	DIEHLS SHOPPING CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-04	A	Low	C	CENTRE DEV-CENTRE PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-05	A	Low	C	CHEROKEE TWO
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-06	A	Low	C	CLUB EVERGREEN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-07	A	Low	C	DELTA SENIOR COMMUNITY CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-08	A	Low	C	DELTA FOOD MART AND DELI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-09	A	Low	C	DELTA/GREELY SD - DELTA SCHOOL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-10	A	Low	C	CS HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-11	A	Low	C	DELTA DINER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-12	A	Low	C	DELTA CITY PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-13	A	Low	C	FT GREELY LODGE/BIG TOP DRIVE

Table 4 (continued)

Contaminant Source Inventory and Risk Ranking for Centre Park I

Sources of Volatile Organic Chemicals

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	D10-14	A	Low	C	DELTA VISITORS CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-15	A	Low	C	STAN ORCUTT APTS
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-16	A	Low	C	LIVING WORD ACADEMY - MI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-17	A	Low	C	TOMS INN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-18	A	Low	C	KELLYS MOTEL/WINDTUNNEL
Septic systems (serves one single-family home)	R02	R02-01	A	Low	C	Assume 50 or less individual septic systems in Zone A
Tanks, heating oil, residential (above ground)	R08	R08-01	A	Medium	C	Assume 50 or less residential heating oil tanks in Zone A
Tanks, diesel (underground)	T08	T08-01	A	High	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-02	A	High	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-03	A	High	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-04	A	High	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-05	A	High	C	FORT GREELY
Tanks, diesel (underground)	T08	T08-06	A	High	C	Delta Texaco
Tanks, diesel (underground)	T08	T08-07	A	High	C	Delta Texaco
Tanks, diesel (underground)	T08	T08-08	A	High	C	Delta Texaco
Tanks, diesel (underground)	T08	T08-09	A	High	C	DELTA MOTORS
Tanks, diesel (underground)	T08	T08-10	A	High	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Tanks, diesel (underground)	T08	T08-11	A	High	C	OK FUEL CO.

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Tanks, diesel (underground)	T08	T08-12	A	High	C	DELTA JUNCTION
Tanks, diesel (underground)	T08	T08-13	A	High	C	AGRICULTURAL/FORESTRY EXPERIMENT
Closed tanks, diesel (underground)	T09	T09-01	A	Medium	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-02	A	Medium	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-03	A	Medium	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-04	A	Medium	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-05	A	Medium	C	FORT GREELY
Closed tanks, diesel (underground)	T09	T09-06	A	Medium	C	PUMP STATION #9
Closed tanks, diesel (underground)	T09	T09-07	A	Medium	C	PUMP STATION #10
Tanks, gasoline (underground)	T12	T12-01	A	High	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-02	A	High	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-03	A	High	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-04	A	High	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-05	A	High	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-06	A	High	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-07	A	High	C	Delta Texaco
Tanks, gasoline (underground)	T12	T12-08	A	High	C	Delta Texaco
Tanks, gasoline (underground)	T12	T12-09	A	High	C	DELTA MOTORS
Tanks, gasoline (underground)	T12	T12-10	A	High	C	DELTA MOTORS
Tanks, gasoline (underground)	T12	T12-11	A	High	C	DELTA MOTORS

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Tanks, gasoline (underground)	T12	T12-12	A	High	C	OK FUEL CO.
Tanks, gasoline (underground)	T12	T12-13	A	High	C	AGRICULTURAL/FORESTRY EXPERIMENT
Closed tanks, gasoline (underground)	T13	T13-01	A	Medium	C	FORT GREELY
Closed tanks, gasoline (underground)	T13	T13-02	A	Medium	C	PUMP STATION #9
Closed tanks, gasoline (underground)	T13	T13-03	A	Medium	C	PUMP STATION #10
Closed tanks, gasoline (underground)	T13	T13-04	A	Medium	C	ADNR - DIV OF FORESTRY, DELTA AREA
Tanks, heating oil, nonresidential (underground)	T16	T16-01	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-02	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-03	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-04	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-05	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-06	A	Low	C	OK FUEL CO.
Tanks, heating oil, nonresidential (underground)	T16	T16-07	A	Low	C	Delta Greely Learning Ctr/Delta School District
Tanks, heating oil, nonresidential (underground)	T16	T16-08	A	Low	C	OK FUEL CO.
Closed tanks, heating oil, nonresidential (underground)	T17	T17-01	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-02	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-03	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-04	A	Medium	C	FORT GREELY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Closed tanks, heating oil, nonresidential (underground)	T17	T17-05	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-06	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-07	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-08	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-09	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-10	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-11	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-12	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-13	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-14	A	Medium	C	FORT GREELY
Closed tanks, heating oil, nonresidential (underground)	T17	T17-15	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-01	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-02	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-03	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-04	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-05	A	Medium	C	FORT GREELY

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Wastewater Holding Tank	T22	T22-06	A	Medium	C	FORT GREELY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-01	A	High	C	Oklahoma Range A-10 Site. Reckey: 199531X128301. Status: Inactive. Site of crash of A-10 jet from Eielson AFB on 10/10/95. Site is on Fort Greely Oklahoma bombing range. DRO of 9,490 ppm remain on site.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-02	A	High	C	ADNR - Asphalt Drum Site. Reckey: 1990330115201. Status: Inactive. 16 corroded drums containing liquid asphalt leaking on the ground. Extent of contamination and threat to human health unknown.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-03	A	High	C	Fort Greely SMDC Parcel 113 POL. Reckey: 199633X127501. Status: Active. Site 113 is reported as an old petroleum storage area. DRO is above migration to groundwater. Diesel fuel detected in soil during BRAC site characterization.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-04	A	High	C	Fort Greely SMDC Parcel 112 Salvage. Reckey: 199633X927501. Status: Active. Site 112 was formerly a fenced salvage yard. Contaminants of concern include: GRO, DRO, RRO, VOCs, SVOCs, and pesticides.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-05	A	High	C	Fort Greely SMDC Parcel 77 Bldg 340. Reckey: 199633X127503. Status: Active. DRO above migration to groundwater.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-06	A	High	C	Fort Greely SMDC Parcel 76 Bldg 352. Reckey: 199633X927502. Status: Active. Diesel and SVOC contamination under Building 351. 100 gallons of diesel fuel spilled was reported sometime in 1992.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-01	A	High	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-02	A	High	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-03	A	High	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-04	A	High	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-05	A	High	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-06	A	High	C	Delta Texaco
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-07	A	High	C	DELTA MOTORS

Table 4 (continued)

Contaminant Source Inventory and Risk Ranking for Centre Park I

Sources of Volatile Organic Chemicals

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-08	A	High	C	FAA - DELTA JUNCTION
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-09	A	High	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-01	A	High	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-02	A	High	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-03	A	High	C	CRAIG TAYLOR EPUIPMENT COMPANY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-04	A	High	C	ALASKA FARMERS COOPERATIVE,INC.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-05	A	High	C	DELTA JUNCTION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-06	A	High	C	ADNR - DIV OF FORESTRY, DELTA AREA
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	High	C	Asphalt Drum Site
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	High	C	Asphalt Drum Site
Petroleum product bulk station/terminals	X11	X11-01	A	Very High	C	Assume one petroleum product bulk station/terminal in Zone A
Government vehicle maintenance facilities	X19	X19-01	A	Medium	C	FORT GREELY
Government vehicle maintenance facilities	X19	X19-02	A	Medium	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Highways and roads, dirt/gravel	X24	X24-01	A	Low	C	Assume 1-20 roads in Zone A
Electric power generation (fossil fuels)	X36	X36-01	A	Medium	C	FORT GREELY
Pump Stations (oil and gas)	X43	X43-01	A	Low	C	PUMP STATION #9
Pump Stations (oil and gas)	X43	X43-02	A	Low	C	PUMP STATION #10

Table 4 (continued)

Contaminant Source Inventory and Risk Ranking for Centre Park I

Sources of Volatile Organic Chemicals

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Highways and roads, dirt/gravel	X24	X24-02	B	Low	C	Assume 1-20 roads in Zone B
Highways and roads, dirt/gravel	X24	X24-03	C	Low	C	Assume 1-20 roads in Zone C
Pipelines (oil and gas)	X28	X28-01	C	Medium	C	Pipeline

Table 5

Contaminant Source Inventory and Risk Ranking for Centre Park I

Sources of Heavy Metals, Cyanide and Other Inorganic Chemicals

PWSID 371532.001

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Cropland	A02	A02-01	A	Medium	C	ALASKA FARMERS COOPERATIVE,INC.
Cropland	A02	A02-02	A	Medium	C	AGRICULTURAL/FORESTRY EXPERIMENT
Gasoline stations (without repair shop)	C15	C15-01	A	Low	C	Delta Texaco
Gasoline stations (without repair shop)	C15	C15-02	A	Low	C	OK FUEL CO.
Domestic wastewater treatment plant disposal ponds/lagoons	D02	D02-01	A	Low	C	Assume one sewage disposal pond/lagoon in Zone A
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-01	A	Low	C	BAY HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-02	A	Low	C	BIG D BAR
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-03	A	Low	C	DIEHLS SHOPPING CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-04	A	Low	C	CENTRE DEV-CENTRE PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-05	A	Low	C	CHEROKEE TWO
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-06	A	Low	C	CLUB EVERGREEN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-07	A	Low	C	DELTA SENIOR COMMUNITY CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-08	A	Low	C	DELTA FOOD MART AND DELI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-09	A	Low	C	DELTA/GREELY SD - DELTA SCHOOL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-10	A	Low	C	CS HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-11	A	Low	C	DELTA DINER

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	D10-12	A	Low	C	DELTA CITY PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-13	A	Low	C	FT GREELY LODGE/BIG TOP DRIVE
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-14	A	Low	C	DELTA VISITORS CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-15	A	Low	C	STAN ORCUTT APTS
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-16	A	Low	C	LIVING WORD ACADEMY - MI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-17	A	Low	C	TOMS INN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-18	A	Low	C	KELLYS MOTEL/WINDTUNNEL
Septic systems (serves one single-family home)	R02	R02-01	A	Low	C	Assume 50 or less individual septic systems in Zone A
Tanks, gasoline (underground)	T12	T12-01	A	Medium	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-02	A	Medium	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-03	A	Medium	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-04	A	Medium	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-05	A	Medium	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-06	A	Medium	C	FORT GREELY
Tanks, gasoline (underground)	T12	T12-07	A	Medium	C	Delta Texaco
Tanks, gasoline (underground)	T12	T12-08	A	Medium	C	Delta Texaco
Tanks, gasoline (underground)	T12	T12-09	A	Medium	C	DELTA MOTORS
Tanks, gasoline (underground)	T12	T12-10	A	Medium	C	DELTA MOTORS

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Tanks, gasoline (underground)	T12	T12-11	A	Medium	C	DELTA MOTORS
Tanks, gasoline (underground)	T12	T12-12	A	Medium	C	OK FUEL CO.
Tanks, gasoline (underground)	T12	T12-13	A	Medium	C	AGRICULTURAL/FORESTRY EXPERIMENT
Tanks, heating oil, nonresidential (underground)	T16	T16-01	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-02	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-03	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-04	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-05	A	Low	C	FORT GREELY
Tanks, heating oil, nonresidential (underground)	T16	T16-06	A	Low	C	OK FUEL CO.
Tanks, heating oil, nonresidential (underground)	T16	T16-07	A	Low	C	Delta Greely Learning Ctr/Delta School District
Tanks, heating oil, nonresidential (underground)	T16	T16-08	A	Low	C	OK FUEL CO.
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-01	A	Medium	C	FORT GREELY
Closed tanks, lubricants or other petroleum products (underground)	T21	T21-02	A	Medium	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Wastewater Holding Tank	T22	T22-01	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-02	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-03	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-04	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-05	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-06	A	Medium	C	FORT GREELY

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-01	A	Low	C	Oklahoma Range A-10 Site. Reckey: 199531X128301. Status: Inactive. Site of crash of A-10 jet from Eielson AFB on 10/10/95. Site is on Fort Greely Oklahoma bombing range. DRO of 9,490 ppm remain on site.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-02	A	Low	C	ADNR - Asphalt Drum Site. Reckey: 1990330115201. Status: Inactive. 16 corroded drums containing liquid asphalt leaking on the ground. Extent of contamination and threat to human health unknown.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-03	A	Low	C	Fort Greely SMDC Parcel 113 POL. Reckey: 199633X127501. Status: Active. Site 113 is reported as an old petroleum storage area. DRO is above migration to groundwater. Diesel fuel detected in soil during BRAC site characterization.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-04	A	Low	C	Fort Greely SMDC Parcel 112 Salvage. Reckey: 199633X927501. Status: Active. Site 112 was formerly a fenced salvage yard. Contaminants of concern include: GRO, DRO, RRO, VOCs, SVOCs, and pesticides.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-05	A	Low	C	Fort Greely SMDC Parcel 77 Bldg 340. Reckey: 199633X127503. Status: Active. DRO above migration to groundwater.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-06	A	Low	C	Fort Greely SMDC Parcel 76 Bldg 352. Reckey: 199633X927502. Status: Active. Diesel and SVOC contamination under Building 351. 100 gallons of diesel fuel spilled was reported sometime in 1992.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-01	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-02	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-03	A	Low	C	CRAIG TAYLOR EPUIPMENT COMPANY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-04	A	Low	C	ALASKA FARMERS COOPERATIVE,INC.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-05	A	Low	C	DELTA JUNCTION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-06	A	Low	C	ADNR - DIV OF FORESTRY, DELTA AREA
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Very High	C	Asphalt Drum Site
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Very High	C	Asphalt Drum Site

Table 5 (continued)

Contaminant Source Inventory and Risk Ranking for Centre Park I

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*
Petroleum product bulk station/terminals	X11	X11-01	A	Low	C	Assume one petroleum product bulk station/terminal in Zone A
Government vehicle maintenance facilities	X19	X19-01	A	Low	C	FORT GREELY
Government vehicle maintenance facilities	X19	X19-02	A	Low	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Highways and roads, dirt/gravel	X24	X24-01	A	Low	C	Assume 1-20 roads in Zone A
Electric power generation (fossil fuels)	X36	X36-01	A	Medium	C	FORT GREELY
Pump Stations (oil and gas)	X43	X43-01	A	Low	C	PUMP STATION #9
Pump Stations (oil and gas)	X43	X43-02	A	Low	C	PUMP STATION #10
Highways and roads, dirt/gravel	X24	X24-02	B	Low	C	Assume 1-20 roads in Zone B
Highways and roads, dirt/gravel	X24	X24-03	C	Low	C	Assume 1-20 roads in Zone C
Pipelines (oil and gas)	X28	X28-01	C	Low	C	Pipeline

Table 6

Contaminant Source Inventory and Risk Ranking for Centre Park I
Sources of Synthetic Organic Chemicals

PWSID 371532.001

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Cropland	A02	A02-01	A	High	C	ALASKA FARMERS COOPERATIVE,INC.
Cropland	A02	A02-02	A	High	C	AGRICULTURAL/FORESTRY EXPERIMENT
Domestic wastewater treatment plant disposal ponds/lagoons	D02	D02-01	A	Low	C	Assume one sewage disposal pond/lagoon in Zone A
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-01	A	Low	C	BAY HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-02	A	Low	C	BIG D BAR
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-03	A	Low	C	DIEHLS SHOPPING CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-04	A	Low	C	CENTRE DEV-CENTRE PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-05	A	Low	C	CHEROKEE TWO
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-06	A	Low	C	CLUB EVERGREEN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-07	A	Low	C	DELTA SENIOR COMMUNITY CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-08	A	Low	C	DELTA FOOD MART AND DELI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-09	A	Low	C	DELTA/GREELY SD - DELTA SCHOOL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-10	A	Low	C	CS HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-11	A	Low	C	DELTA DINER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-12	A	Low	C	DELTA CITY PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-13	A	Low	C	FT GREELY LODGE/BIG TOP DRIVE

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	D10-14	A	Low	C	DELTA VISITORS CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-15	A	Low	C	STAN ORCUTT APTS
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-16	A	Low	C	LIVING WORD ACADEMY - MI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-17	A	Low	C	TOMS INN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-18	A	Low	C	KELLYS MOTEL/WINDTUNNEL
Septic systems (serves one single-family home)	R02	R02-01	A	Low	C	Assume 50 or less individual septic systems in Zone A
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-01	A	Low	C	Oklahoma Range A-10 Site. Reckey: 199531X128301. Status: Inactive. Site of crash of A-10 jet from Eielson AFB on 10/10/95. Site is on Fort Greely Oklahoma bombing range. DRO of 9,490 ppm remain on site.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-02	A	Low	C	ADNR - Asphalt Drum Site. Reckey: 1990330115201. Status: Inactive. 16 corroded drums containing liquid asphalt leaking on the ground. Extent of contamination and threat to human health unknown.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-03	A	Low	C	Fort Greely SMDC Parcel 113 POL. Reckey: 199633X127501. Status: Active. Site 113 is reported as an old petroleum storage area. DRO is above migration to groundwater. Diesel fuel detected in soil during BRAC site characterization.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-04	A	Low	C	Fort Greely SMDC Parcel 112 Salvage. Reckey: 199633X927501. Status: Active. Site 112 was formerly a fenced salvage yard. Contaminants of concern include: GRO, DRO, RRO, VOCs, SVOCs, and pesticides.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-05	A	Low	C	Fort Greely SMDC Parcel 77 Bldg 340. Reckey: 199633X127503. Status: Active. DRO above migration to groundwater.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-06	A	Low	C	Fort Greely SMDC Parcel 76 Bldg 352. Reckey: 199633X927502. Status: Active. Diesel and SVOC contamination under Building 351. 100 gallons of diesel fuel spilled was reported sometime in 1992.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-01	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-02	A	Low	C	FORT GREELY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-03	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-04	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-05	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-06	A	Low	C	Delta Texaco
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-07	A	Low	C	DELTA MOTORS
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-08	A	Low	C	FAA - DELTA JUNCTION
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-09	A	Low	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-01	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-02	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-03	A	Low	C	CRAIG TAYLOR EPUIPMENT COMPANY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-04	A	Low	C	ALASKA FARMERS COOPERATIVE,INC.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-05	A	Low	C	DELTA JUNCTION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-06	A	Low	C	ADNR - DIV OF FORESTRY, DELTA AREA
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Petroleum product bulk station/terminals	X11	X11-01	A	Low	C	Assume one petroleum product bulk station/terminal in Zone A

Contaminant Source Type	*Contaminant Source ID*	*CS ID tag*	*Zone*	*Risk Ranking for Analysis*	*Map Number*	*Comments*

Table 7

Contaminant Source Inventory and Risk Ranking for Centre Park I

Sources of Other Organic Chemicals

PWSID 371532.001

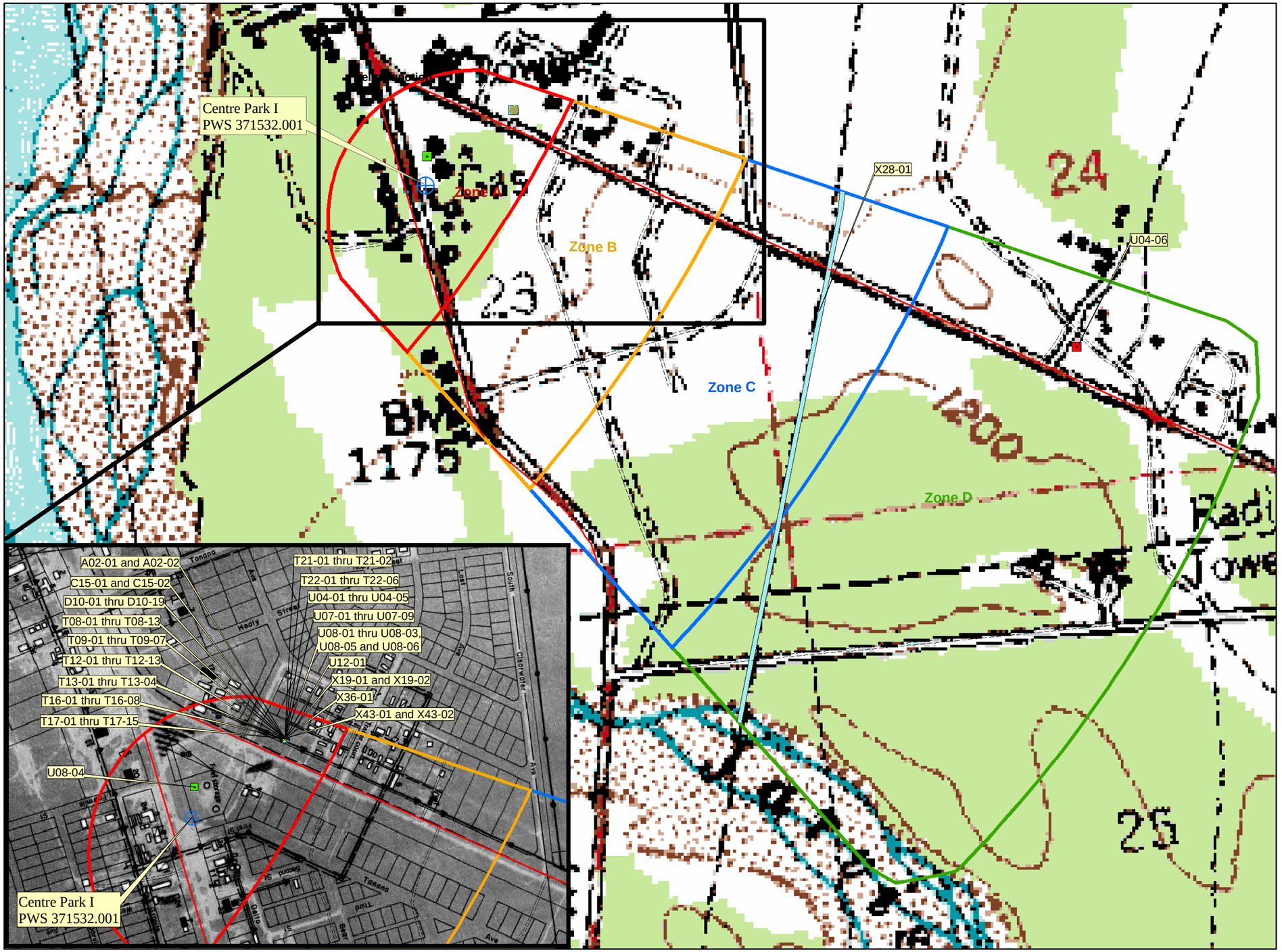
Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Gasoline stations (without repair shop)	C15	C15-01	A	Low	C	Delta Texaco
Gasoline stations (without repair shop)	C15	C15-02	A	Low	C	OK FUEL CO.
Domestic wastewater treatment plant disposal ponds/lagoons	D02	D02-01	A	Low	C	Assume one sewage disposal pond/lagoon in Zone A
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-01	A	Low	C	BAY HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-02	A	Low	C	BIG D BAR
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-03	A	Low	C	DIEHLS SHOPPING CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-04	A	Low	C	CENTRE DEV-CENTRE PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-05	A	Low	C	CHEROKEE TWO
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-06	A	Low	C	CLUB EVERGREEN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-07	A	Low	C	DELTA SENIOR COMMUNITY CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-08	A	Low	C	DELTA FOOD MART AND DELI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-09	A	Low	C	DELTA/GREELY SD - DELTA SCHOOL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-10	A	Low	C	CS HOTEL
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-11	A	Low	C	DELTA DINER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-12	A	Low	C	DELTA CITY PARK
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-13	A	Low	C	FT GREELY LODGE/BIG TOP DRIVE

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	D10-14	A	Low	C	DELTA VISITORS CENTER
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-15	A	Low	C	STAN ORCUTT APTS
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-16	A	Low	C	LIVING WORD ACADEMY - MI
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-17	A	Low	C	TOMS INN
Injection wells (Class V) Large-Capacity Septic System (Drainfield Disposal Method)	D10	D10-18	A	Low	C	KELLYS MOTEL/WINDTUNNEL
Septic systems (serves one single-family home)	R02	R02-01	A	Low	C	Assume 50 or less individual septic systems in Zone A
Wastewater Holding Tank	T22	T22-01	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-02	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-03	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-04	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-05	A	Medium	C	FORT GREELY
Wastewater Holding Tank	T22	T22-06	A	Medium	C	FORT GREELY
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-01	A	Low	C	Oklahoma Range A-10 Site. Reckey: 199531X128301. Status: Inactive. Site of crash of A-10 jet from Eielson AFB on 10/10/95. Site is on Fort Greely Oklahoma bombing range. DRO of 9,490 ppm remain on site.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-02	A	Low	C	ADNR - Asphalt Drum Site. Reckey: 1990330115201. Status: Inactive. 16 corroded drums containing liquid asphalt leaking on the ground. Extent of contamination and threat to human health unknown.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-03	A	Low	C	Fort Greely SMDC Parcel 113 POL. Reckey: 199633X127501. Status: Active. Site 113 is reported as an old petroleum storage area. DRO is above migration to groundwater. Diesel fuel detected in soil during BRAC site characterization.

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-04	A	Low	C	Fort Greely SMDC Parcel 112 Salvage. Reckey: 199633X927501. Status: Active. Site 112 was formerly a fenced salvage yard. Contaminants of concern include: GRO, DRO, RRO, VOCs, SVOCs, and pesticides.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-05	A	Low	C	Fort Greely SMDC Parcel 77 Bldg 340. Reckey: 199633X127503. Status: Active. DRO above migration to groundwater.
Contaminated sites, DEC recognized, non-Superfund, non-RCRA	U04	U04-06	A	Low	C	Fort Greely SMDC Parcel 76 Bldg 352. Reckey: 199633X927502. Status: Active. Diesel and SVOC contamination under Building 351. 100 gallons of diesel fuel spilled was reported sometime in 1992.
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-01	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-02	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-03	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-04	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-05	A	Low	C	FORT GREELY
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-06	A	Low	C	Delta Texaco
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-07	A	Low	C	DELTA MOTORS
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-08	A	Low	C	FAA - DELTA JUNCTION
Open Leaking Underground Fuel Storage Tank (LUST) Sites	U07	U07-09	A	Low	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-01	A	Low	C	FORT GREELY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-02	A	Low	C	FORT GREELY

Contaminant Source Type	Contaminant Source ID	CS ID tag	Zone	Risk Ranking for Analysis	Map Number	Comments
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-03	A	Low	C	CRAIG TAYLOR EPUIPMENT COMPANY
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-04	A	Low	C	ALASKA FARMERS COOPERATIVE,INC.
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-05	A	Low	C	DELTA JUNCTION
Closed Leaking Underground Fuel Storage Tank (LUST) Sites	U08	U08-06	A	Low	C	ADNR - DIV OF FORESTRY, DELTA AREA
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Closed leaking fuel storage tank (LUST) (aviation)	U12	U12-01	A	Low	C	Asphalt Drum Site
Petroleum product bulk station/terminals	X11	X11-01	A	High	C	Assume one petroleum product bulk station/terminal in Zone A
Government vehicle maintenance facilities	X19	X19-01	A	Medium	C	FORT GREELY
Government vehicle maintenance facilities	X19	X19-02	A	Medium	C	ADOTPF - DELTA JUNCTION MAINTENANCE STATION
Highways and roads, dirt/gravel	X24	X24-01	A	Low	C	Assume 1-20 roads in Zone A
Electric power generation (fossil fuels)	X36	X36-01	A	High	C	FORT GREELY
Highways and roads, dirt/gravel	X24	X24-02	B	Low	C	Assume 1-20 roads in Zone B
Highways and roads, dirt/gravel	X24	X24-03	C	Low	C	Assume 1-20 roads in Zone C
Pipelines (oil and gas)	X28	X28-01	C	High	C	Pipeline
Pipelines (oil and gas)	X28	X28-02	D	High	C	Pipeline

Public Water Well System for PWS #371532.001 Centre Park I
Sources of Potential and Existing Contamination



LEGEND

Public Water System Well

Hydrography/Physical

- Parcels
- Stream
- Lake or Pond
- Contours

Transportation

- Primary Route (Class 1)
- Secondary Route (Class 2)
- Road (Class 3)
- Road (Class 4)
- Road (Class 5, Four-wheel drive)

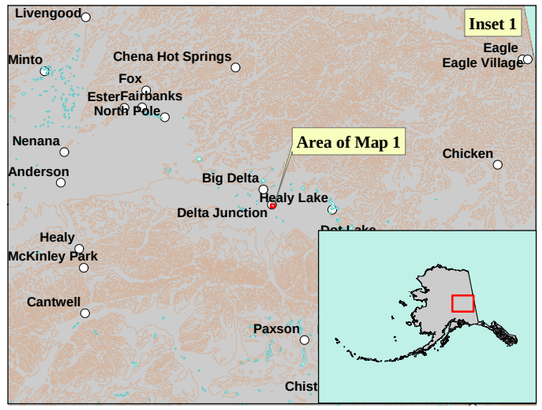
Groundwater Protection Zones

- Zone A Protection Area– Several Months Travel Time
- Zone B Protection Area– 2 Years Travel Time
- Zone C Protection Area– 5 Years Travel Time
- Zone D Protection Area– 10 Years Travel Time

Existing or Potential Contaminant Sources

- Cropland (A02)
- Gasoline stations (without repair shop) (C15)
- Injection wells (Class V) Large-Capacity Septic System (D10)
- 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, heating oil, nonresidential (underground) (T17)
- Closed tanks, lubricants or other petroleum products (underground) (T21)
- Wastewater Holding Tank (T22)
- Contaminated sites, DEC recognized, non-Superfund, non-RCRA (U04)
- Open Leaking Underground Fuel Storage Tank (LUST) (U07)
- Closed Leaking Underground Fuel Storage Tank (LUST) (U08)
- Closed Leaking Underground Fuel Storage Tank (LUST) (U12)
- Government vehicle maintenance facilities (X19)
- Pipeline (oil and gas) (X28)
- Electric power generation (fossil fuels) (X36)
- Pump Stations (oils and gas) (X43)

Data Sources:
Contaminant Sources, Public Water System Wells, Contours
Alaska Department of Environmental Conservation (ADEC)
All other data:
United States Geological Survey (USGS)
Drinking Water Protection Areas based on "Alaska Drinking Water Protection Program - Guidance Manual for Class A Public Water Systems" published by ADEC
URS Corporation does not guarantee the accuracy or validity of the data provided.



0 0.05 0.1 0.2 0.3 0.4 Miles

Centre Park I
PWS 371532.001
Appendix C Map C

Chart 1. Susceptibility of the wellhead - Centre Park I (PWS No. 371532.001)

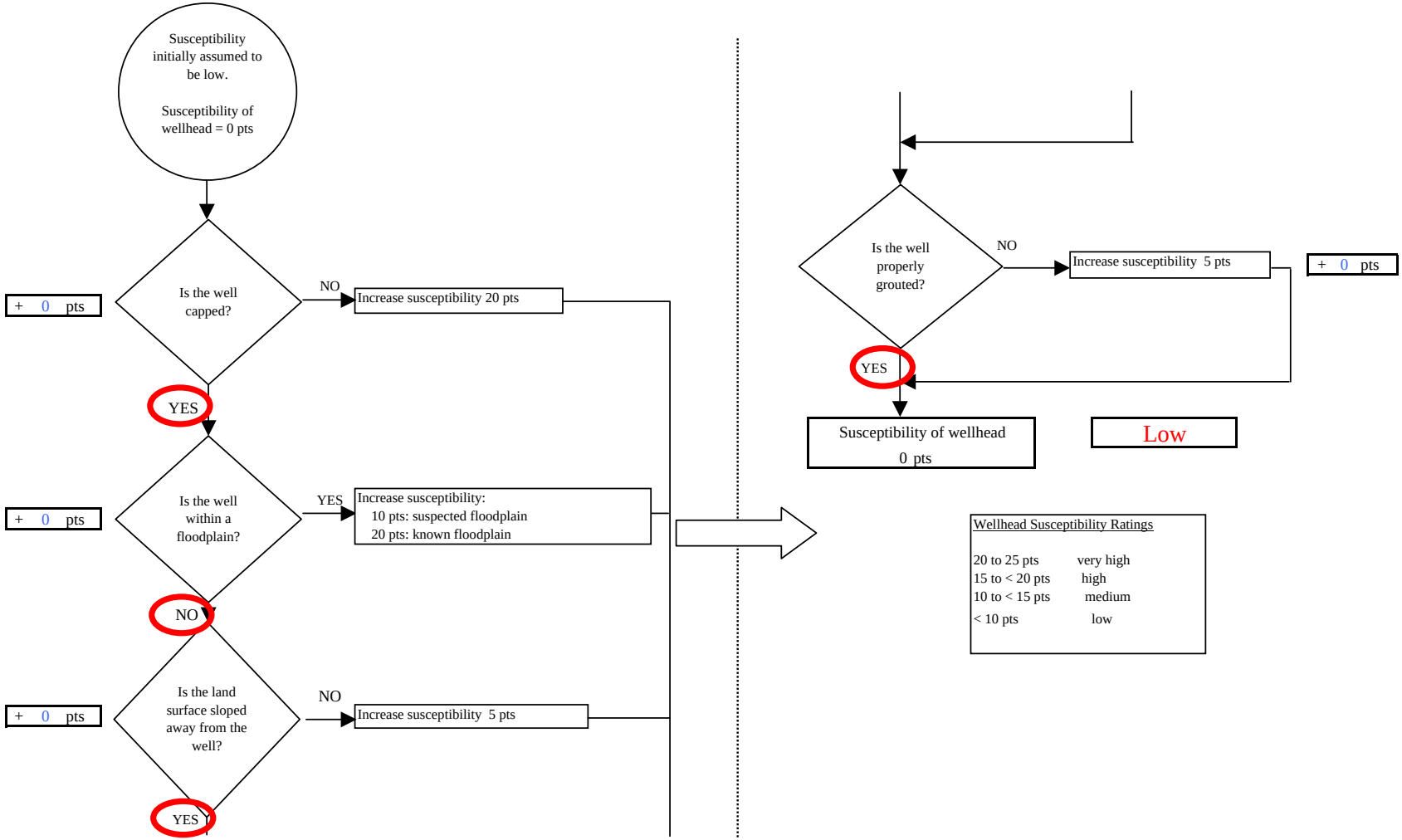


Chart 2. Susceptibility of the aquifer Centre Park I (PWS No. 371532.001)

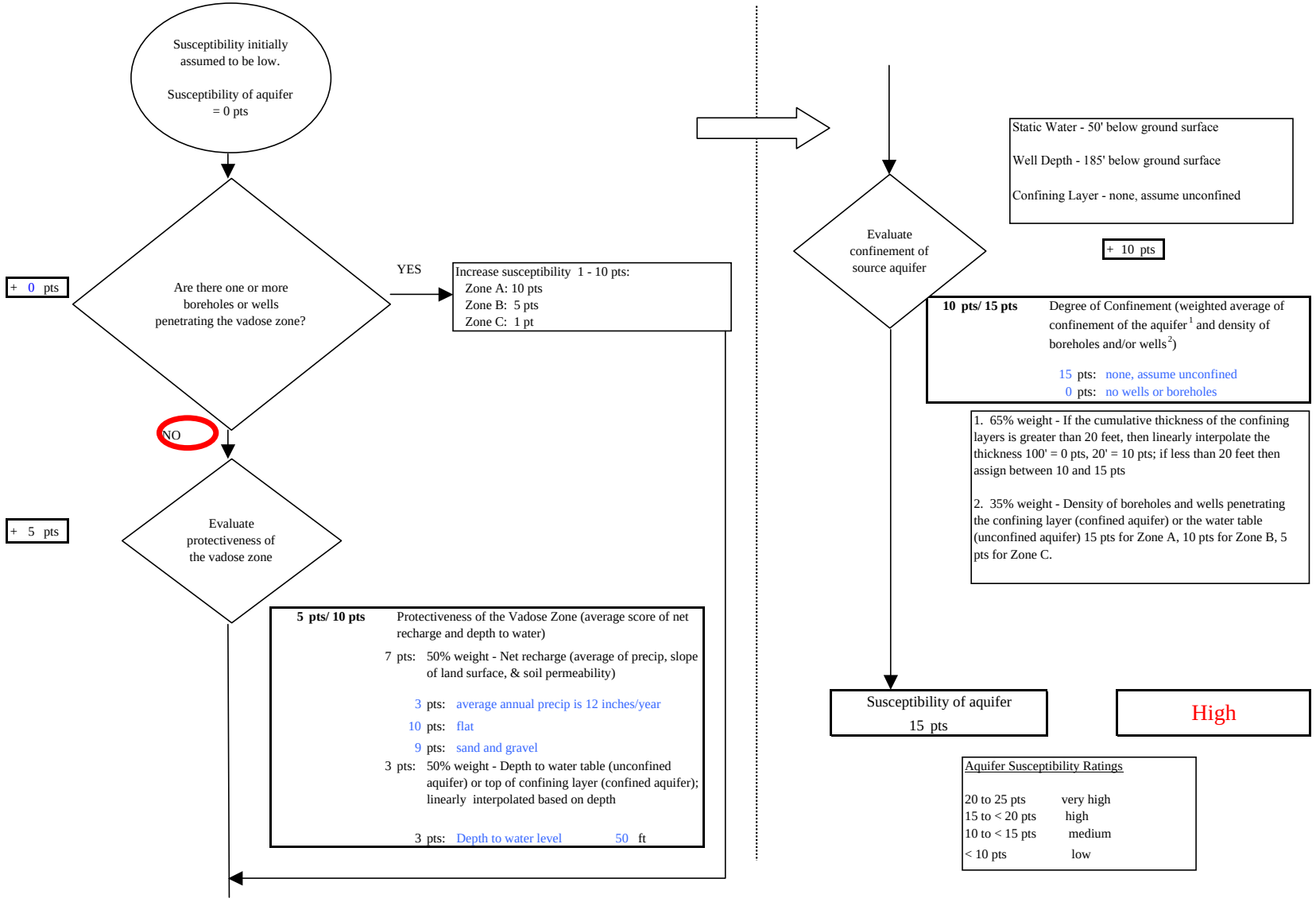
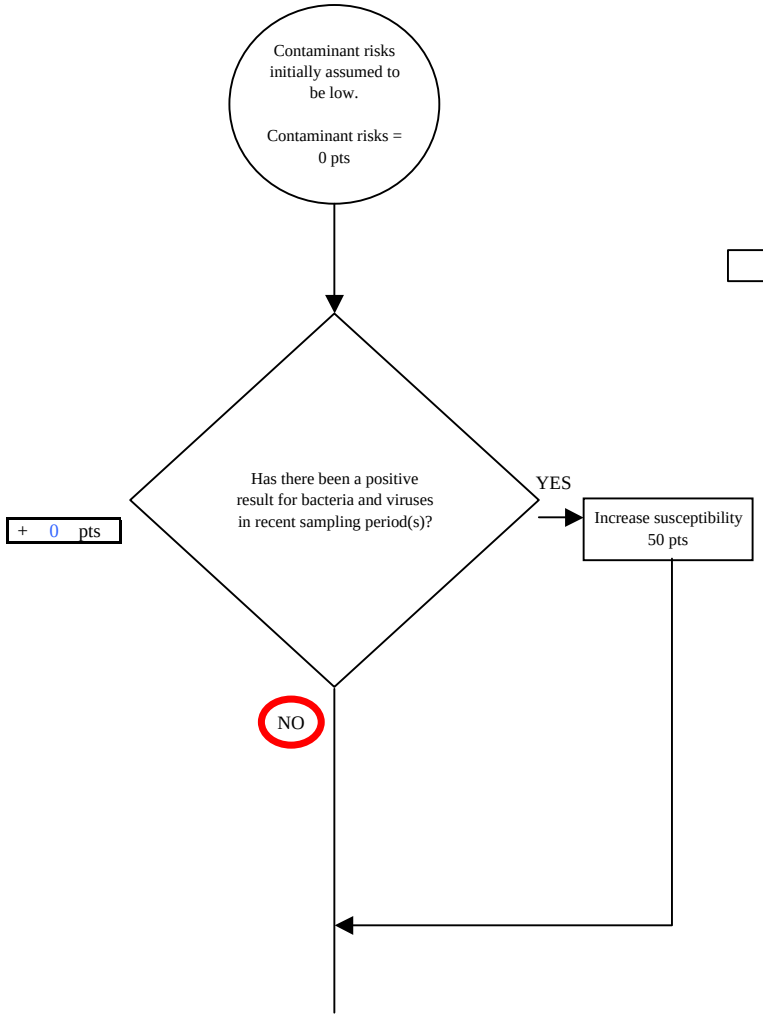
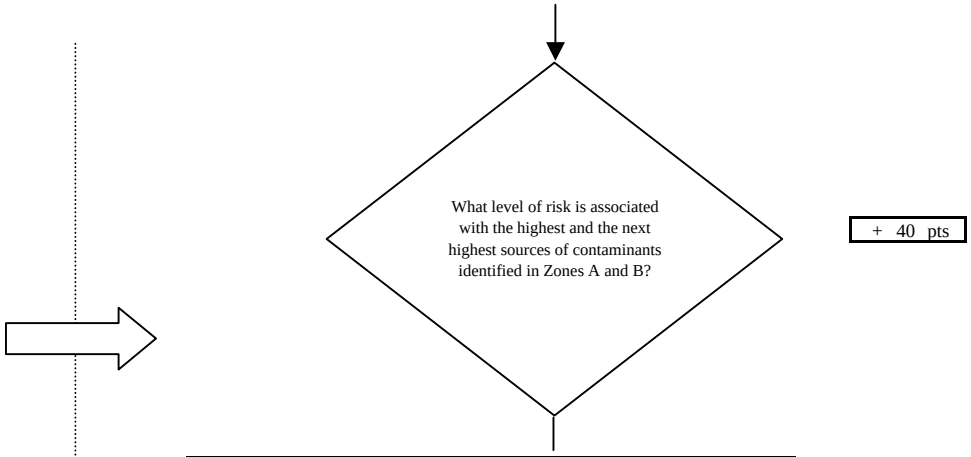


Chart 3. Contaminant risks for Centre Park I (PWS No. 371532.001) - Bacteria & Viruses





Risk Rankings for Contaminant Sources Identified in Zones A and B

	Zone A	Zone B	Total
Very Highs(s)	0	0	0
High(s)	19	0	19
Medium(s)	0	0	0
Low(s)	64	1	65

	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 Centre Park I (PWS No. 371532.001) - Bacteria & Viruses

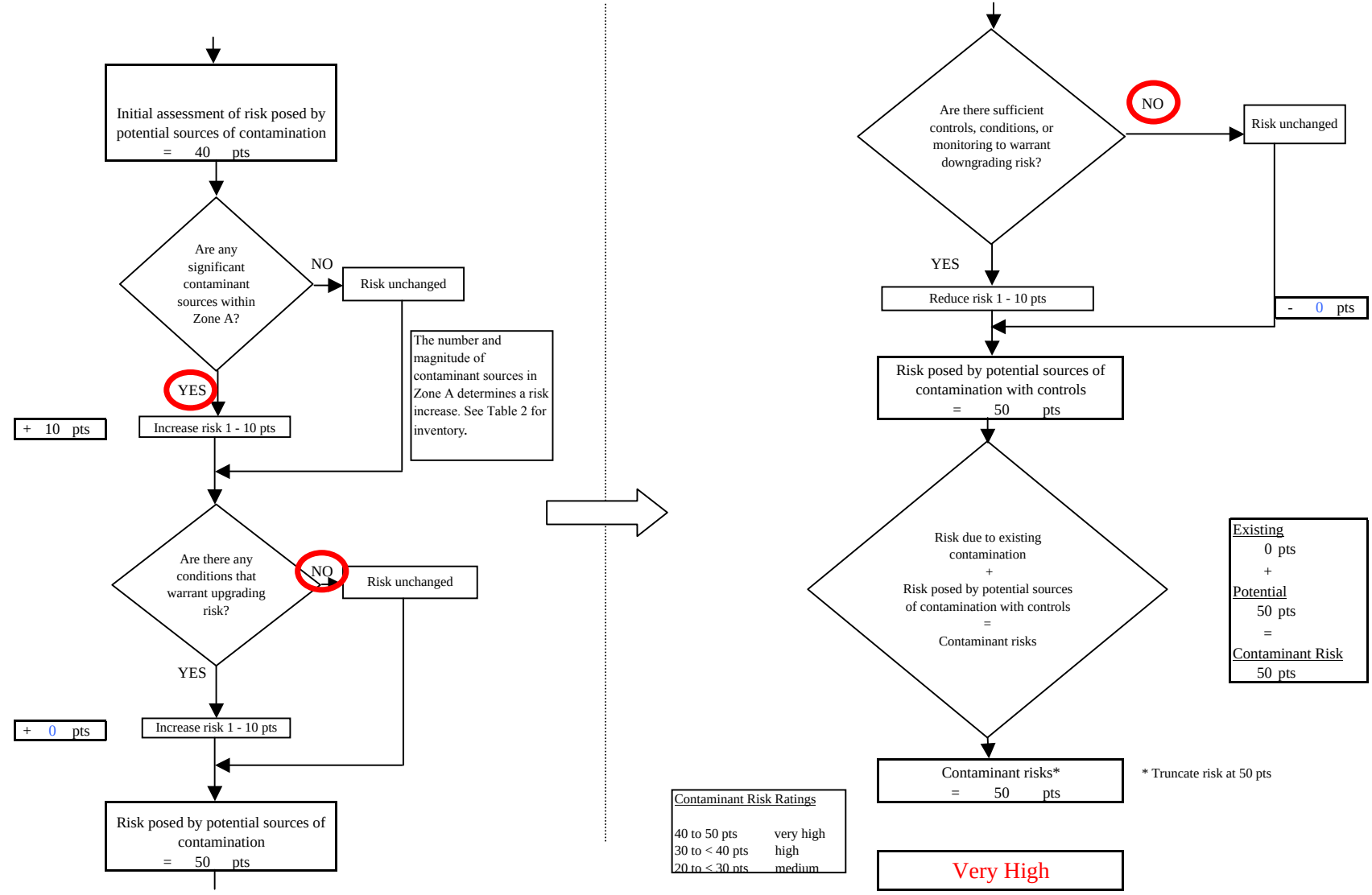


Chart 4. Vulnerability analysis for Centre Park I (PWS No. 371532.001) - Bacteria & Viruses

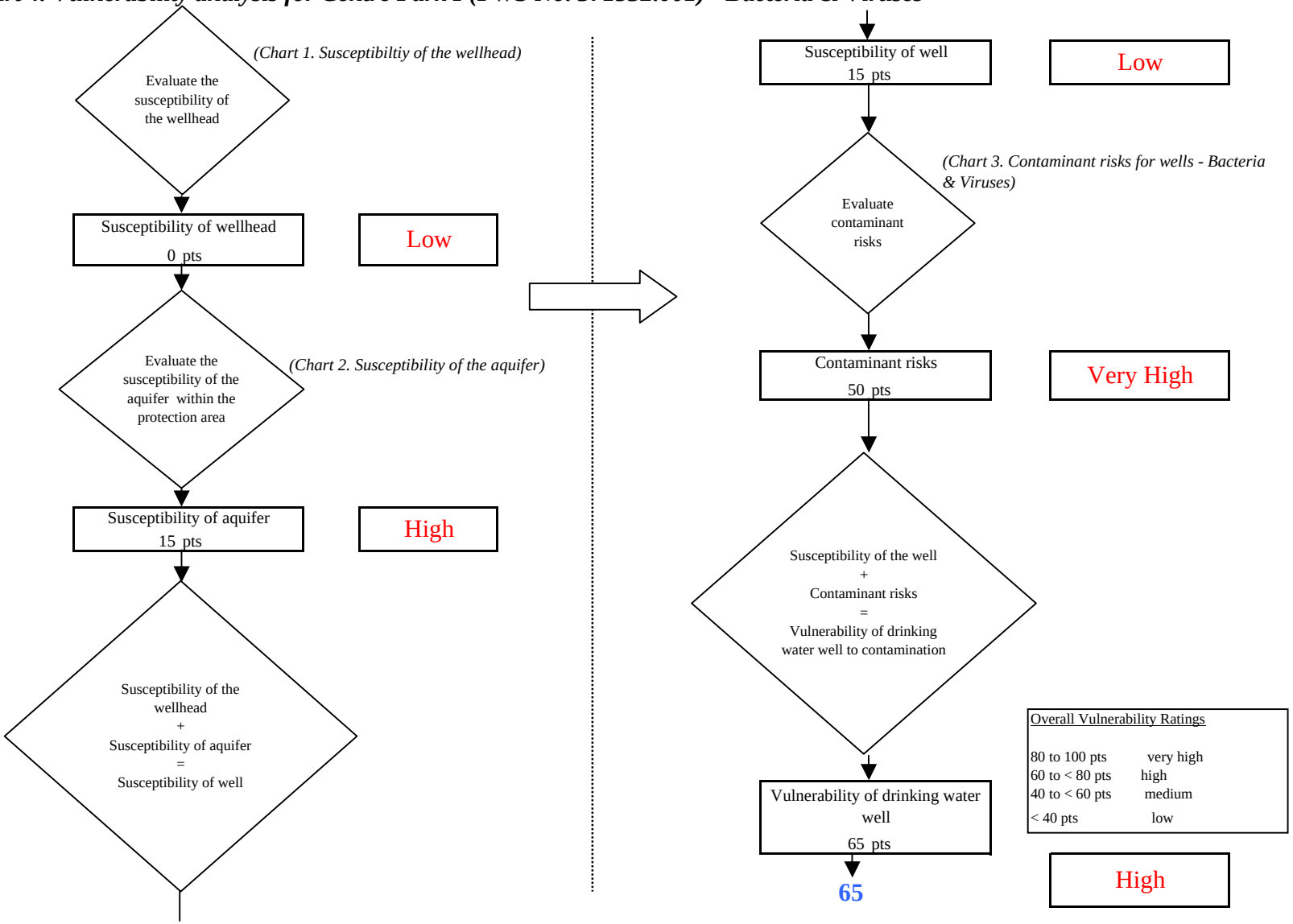


Chart 5. Contaminant risks for Centre Park I (PWS No. 371532.001) - Nitrates and Nitrites

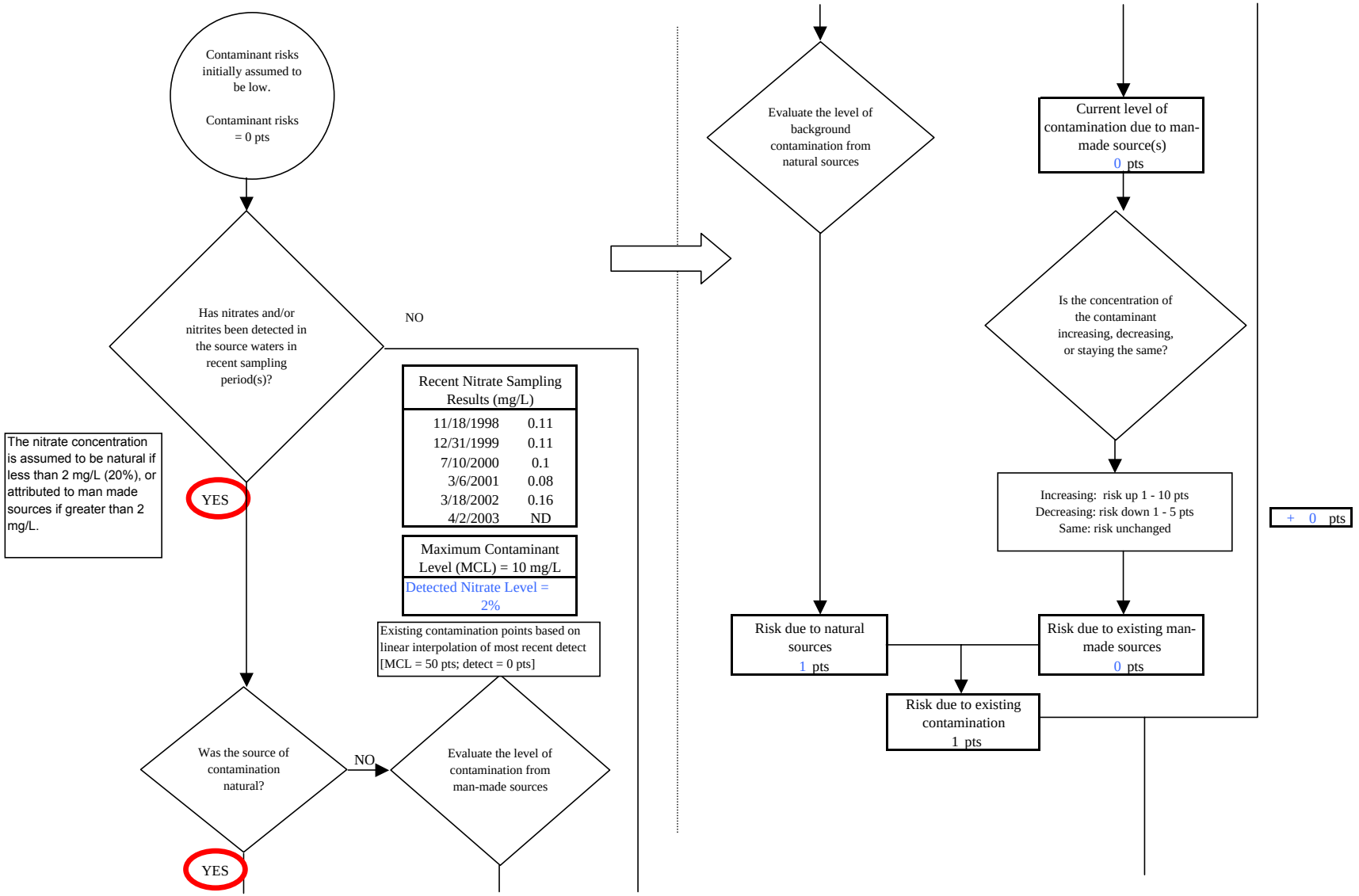
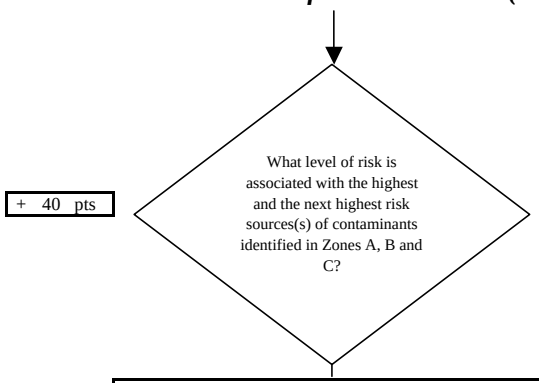


Chart 5. Contaminant risks for Centre Park I (PWS No. 371532.001) - Nitrates and Nitrites



+ 40 pts

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

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	21	0	21
Medium(s)	0	0	0
Low(s)	64	1	65

	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.

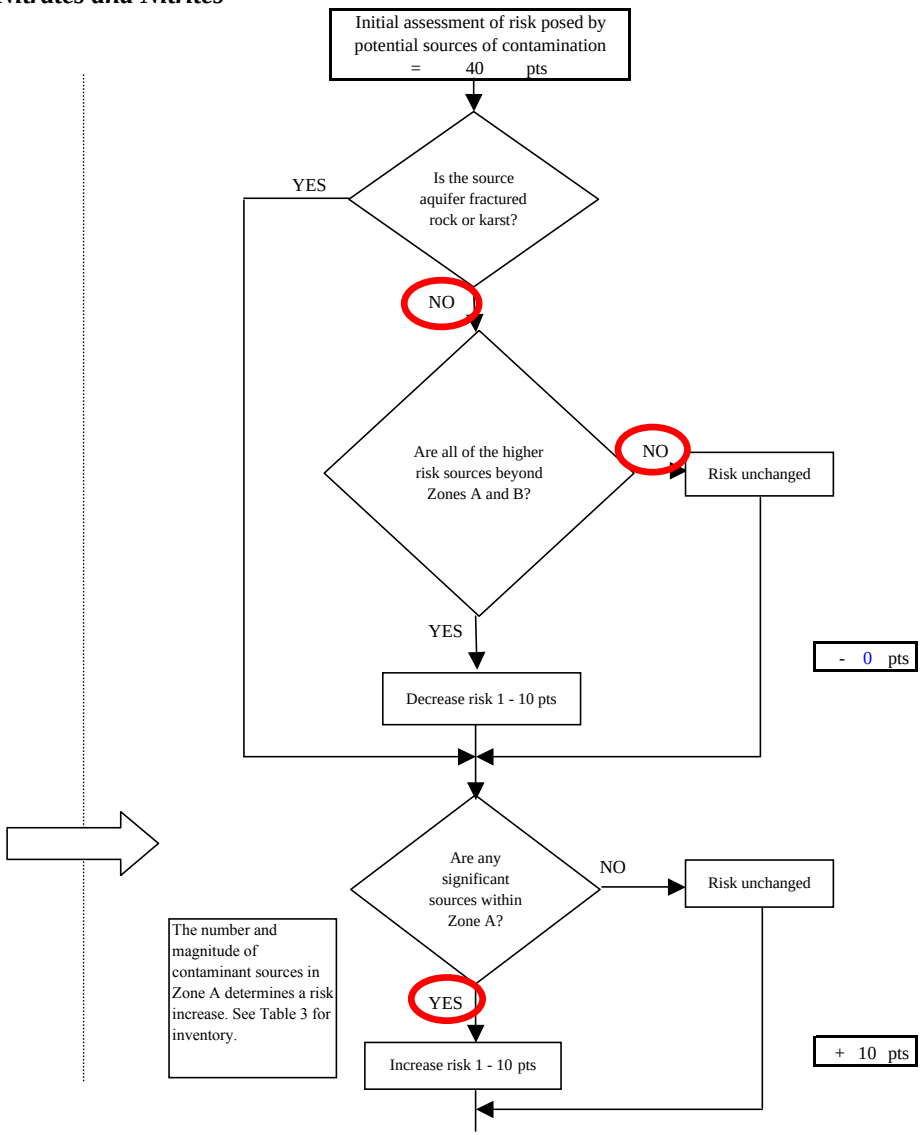


Chart 5. Contaminant risks for Centre Park I (PWS No. 371532.001) - Nitrates and Nitrites

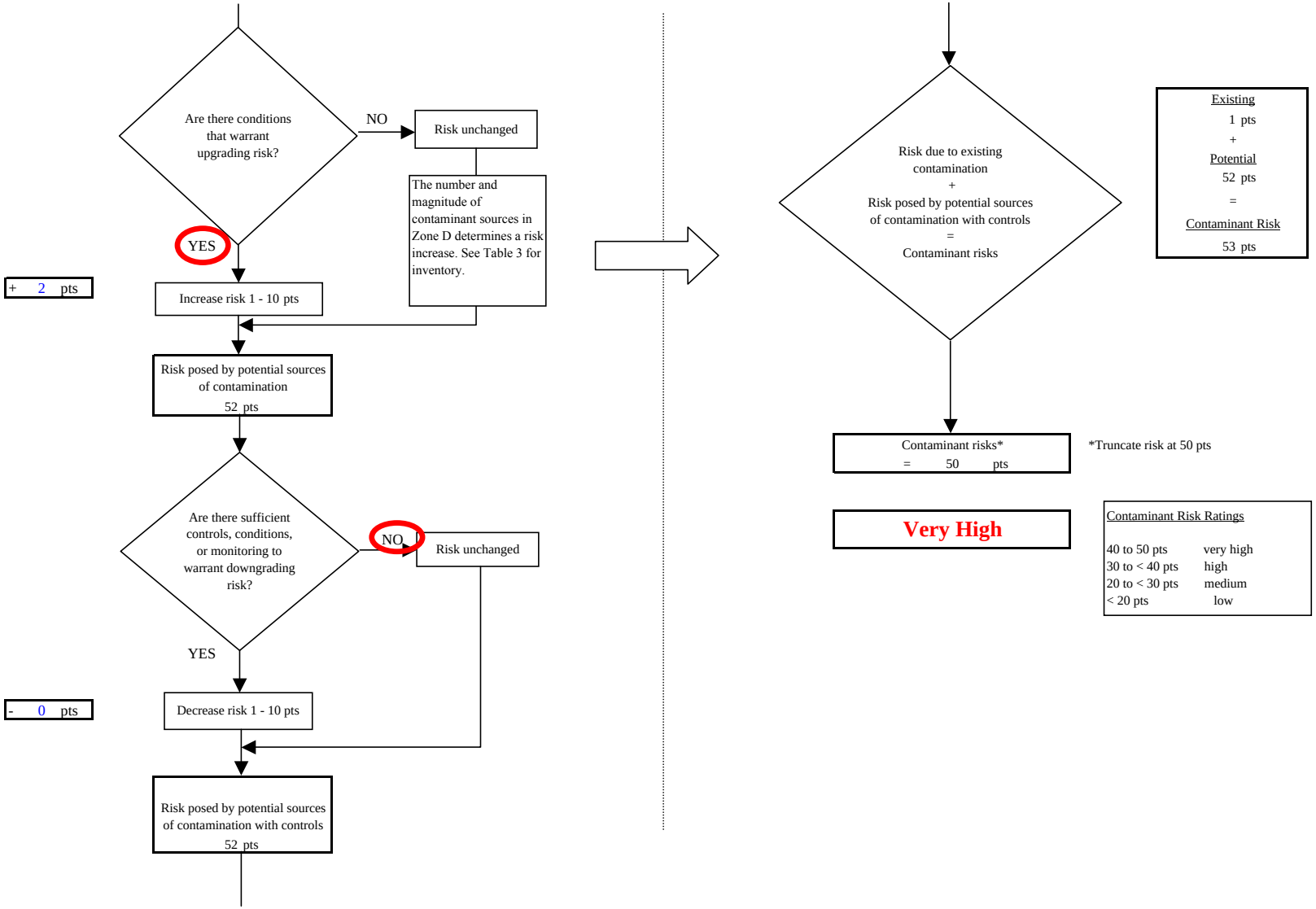


Chart 6. Vulnerability analysis for Centre Park I (PWS No. 371532.001) - Nitrates and Nitrites

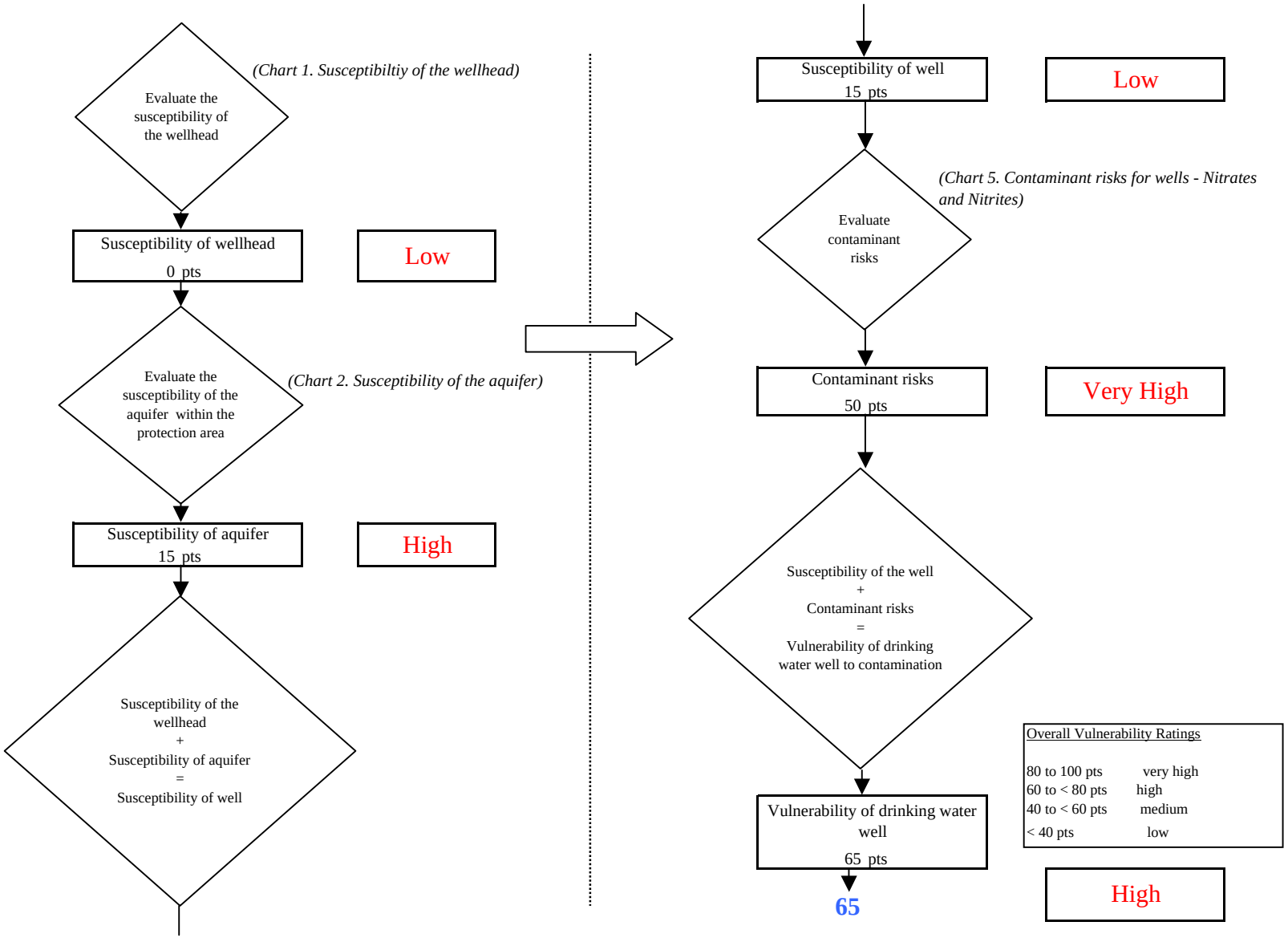


Chart 7. Contaminant risks for Centre Park I (PWS No. 371532.001) - Volatile Organic Chemicals

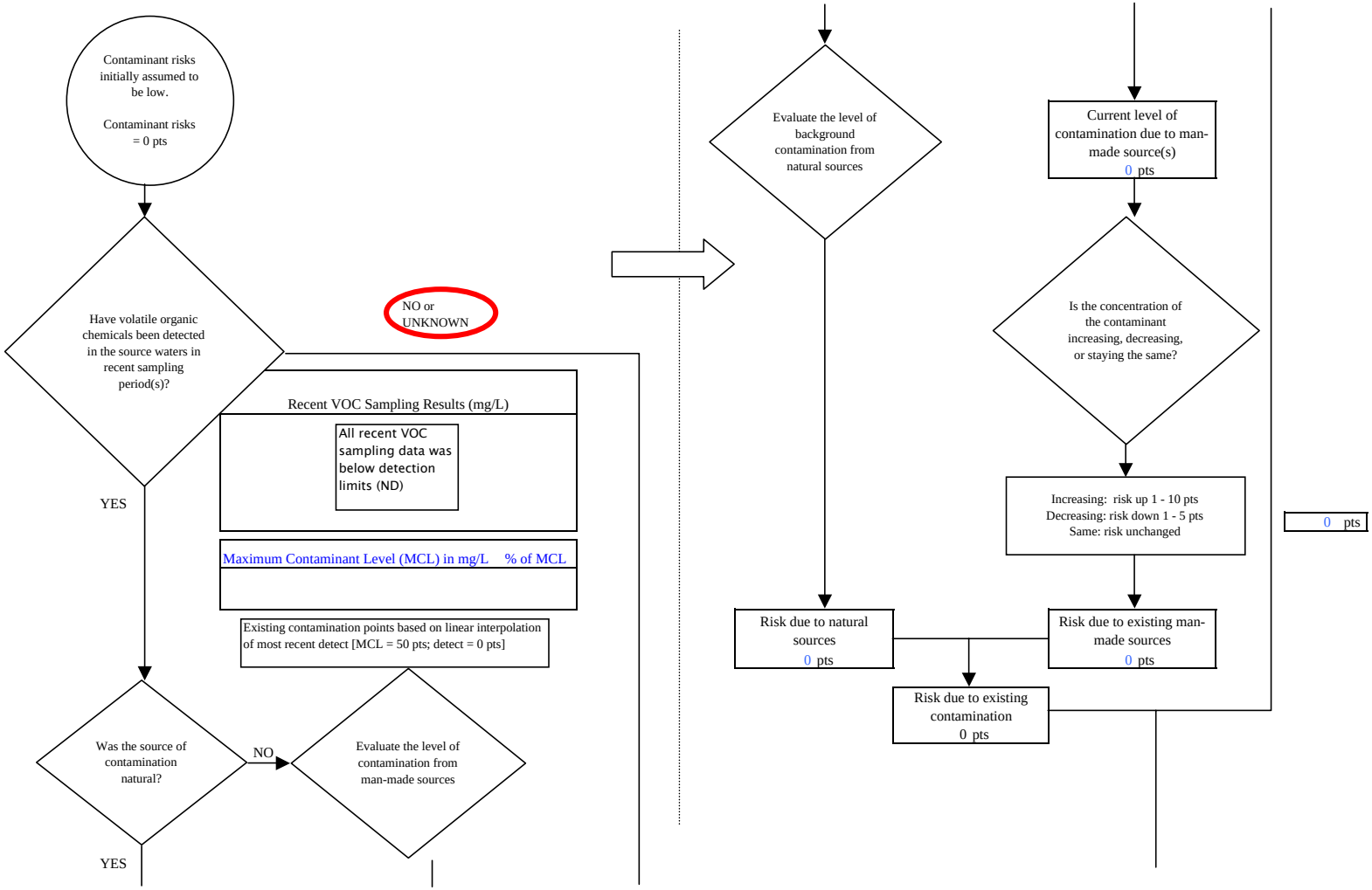


Chart 7. Contaminant risks for Centre Park I (PWS No. 371532.001) - Volatile Organic Chemicals

+ 50 pts

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

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

	Zone A	Zones B&C	Total
Very Highs(s)	1	0	1
High(s)	51	0	51
Medium(s)	85	1	86
Low(s)	33	1	34

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

Matrix Score 50

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

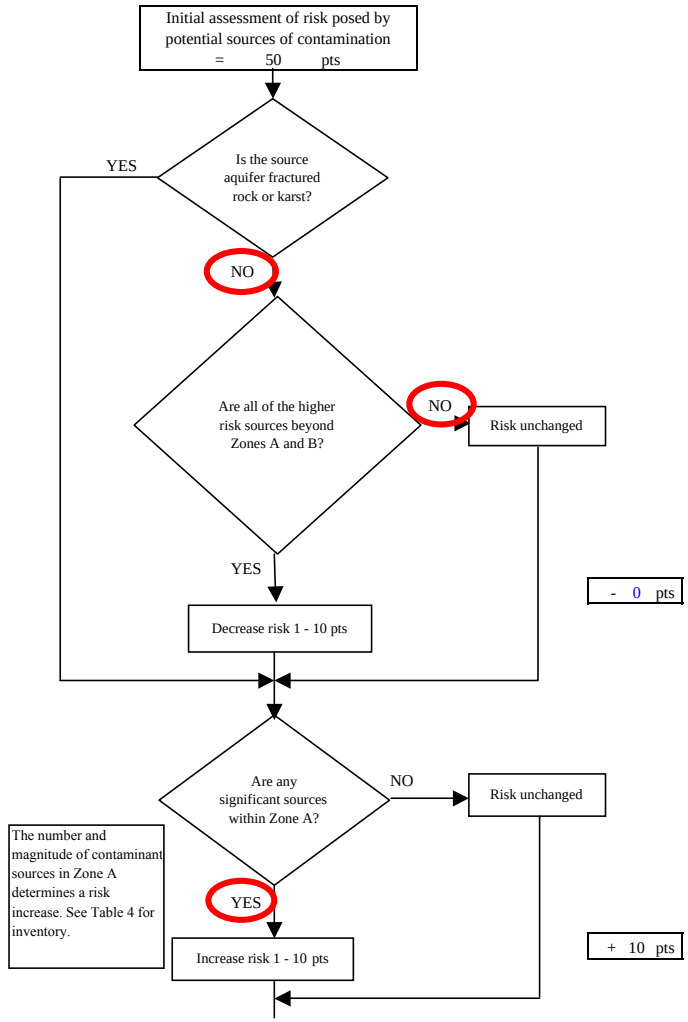


Chart 7. Contaminant risks for Centre Park I (PWS No. 371532.001) - Volatile Organic Chemicals

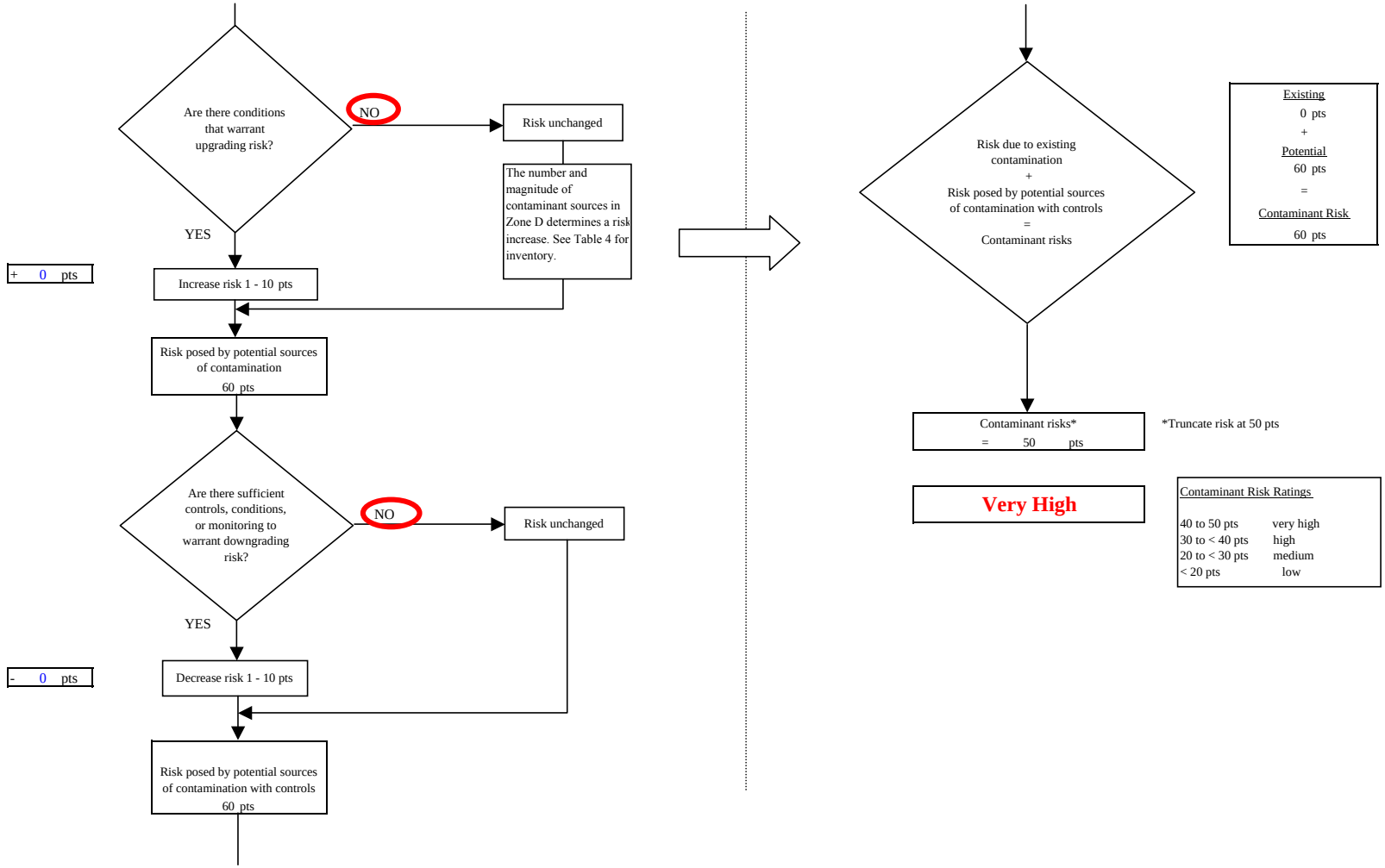


Chart 8. Vulnerability analysis for Centre Park I (PWS No. 371532.001) - Volatile Organic Chemicals

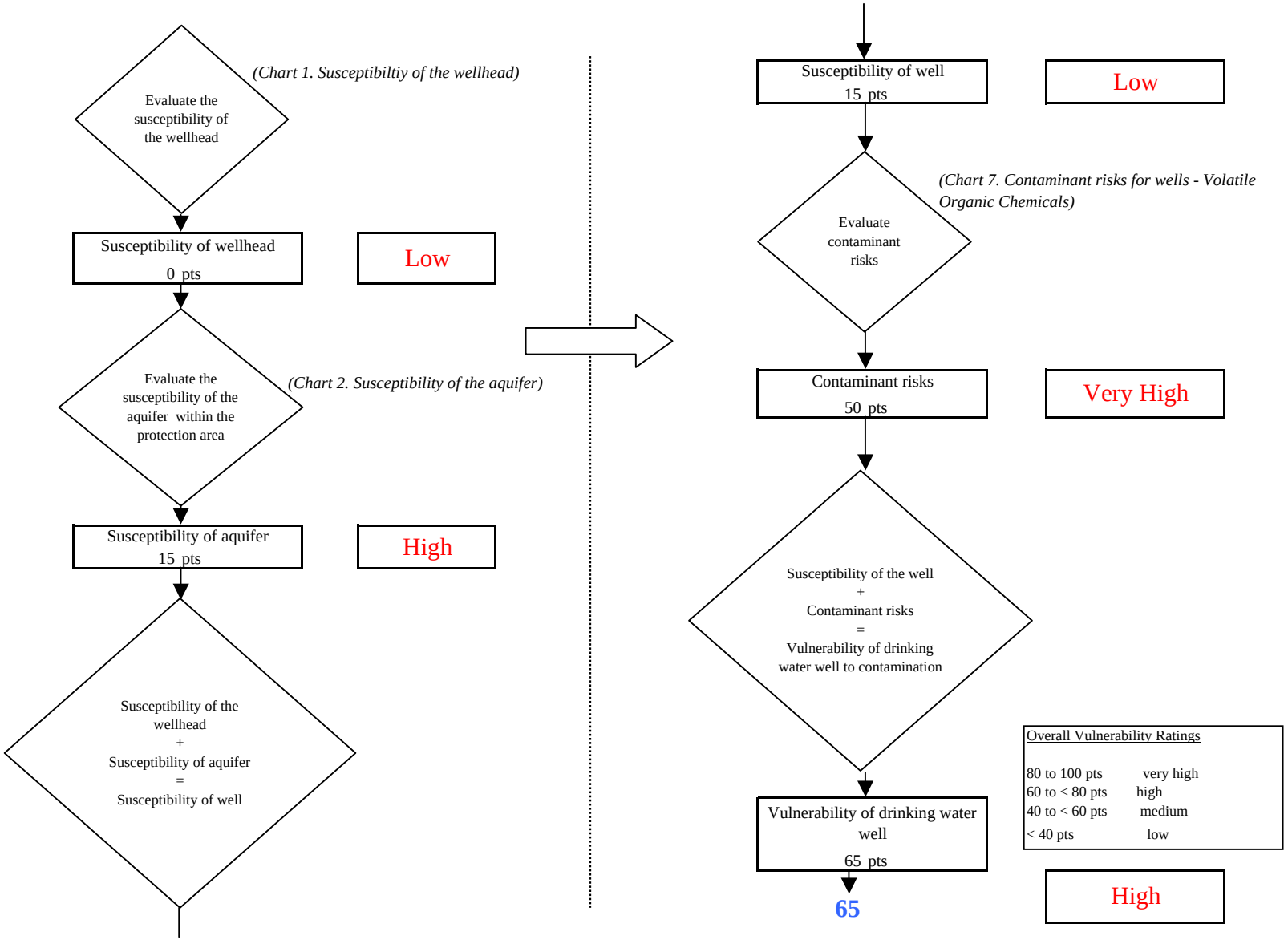


Chart 9. Contaminant risks for Centre Park I (PWS No. 371532.001) - Heavy Metals, Cyanide and Other Inorganic Chemicals

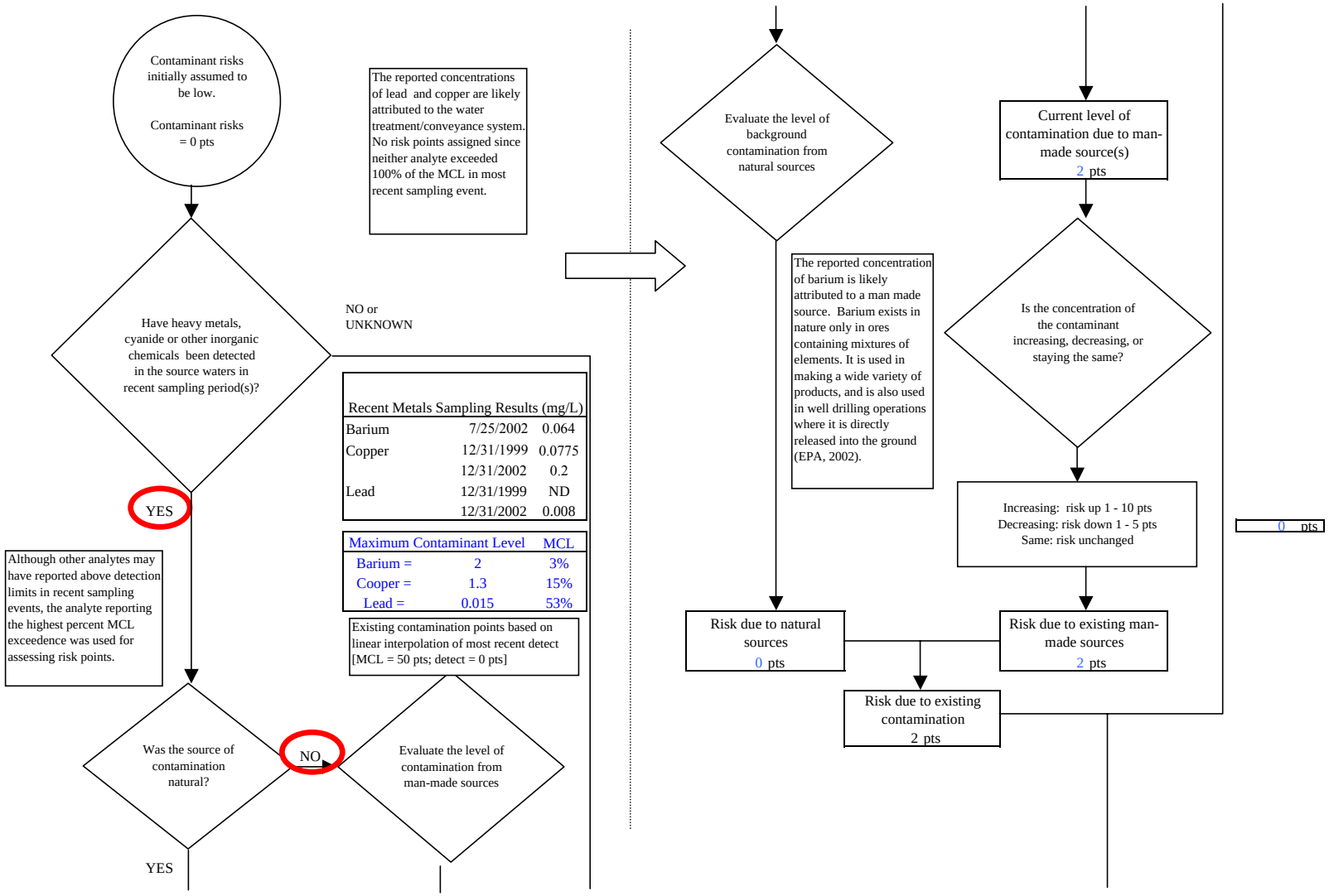


Chart 9. Contaminant risks for Centre Park I (PWS No. 371532.001) - Heavy Metals, Cyanide and Other Inorganic Chemicals

+ 50 pts

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

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

	Zone A	Zones B&C	Total
Very Highs(s)	2	0	2
High(s)	0	0	0
Medium(s)	24	0	24
Low(s)	48	2	50

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

Matrix Score 50

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

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

Is the source aquifer fractured rock or karst?

YES

NO

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

NO

Risk unchanged

YES

Decrease risk 1 - 10 pts

- 0 pts

Are any significant sources within Zone A?

NO

Risk unchanged

The number and magnitude of contaminant sources in Zone A determines a risk increase. See Table 5 for inventory.

YES

Increase risk 1 - 10 pts

+ 10 pts

Chart 9. Contaminant risks for Centre Park I (PWS No. 371532.001) - Heavy Metals, Cyanide and Other Inorganic Chemicals

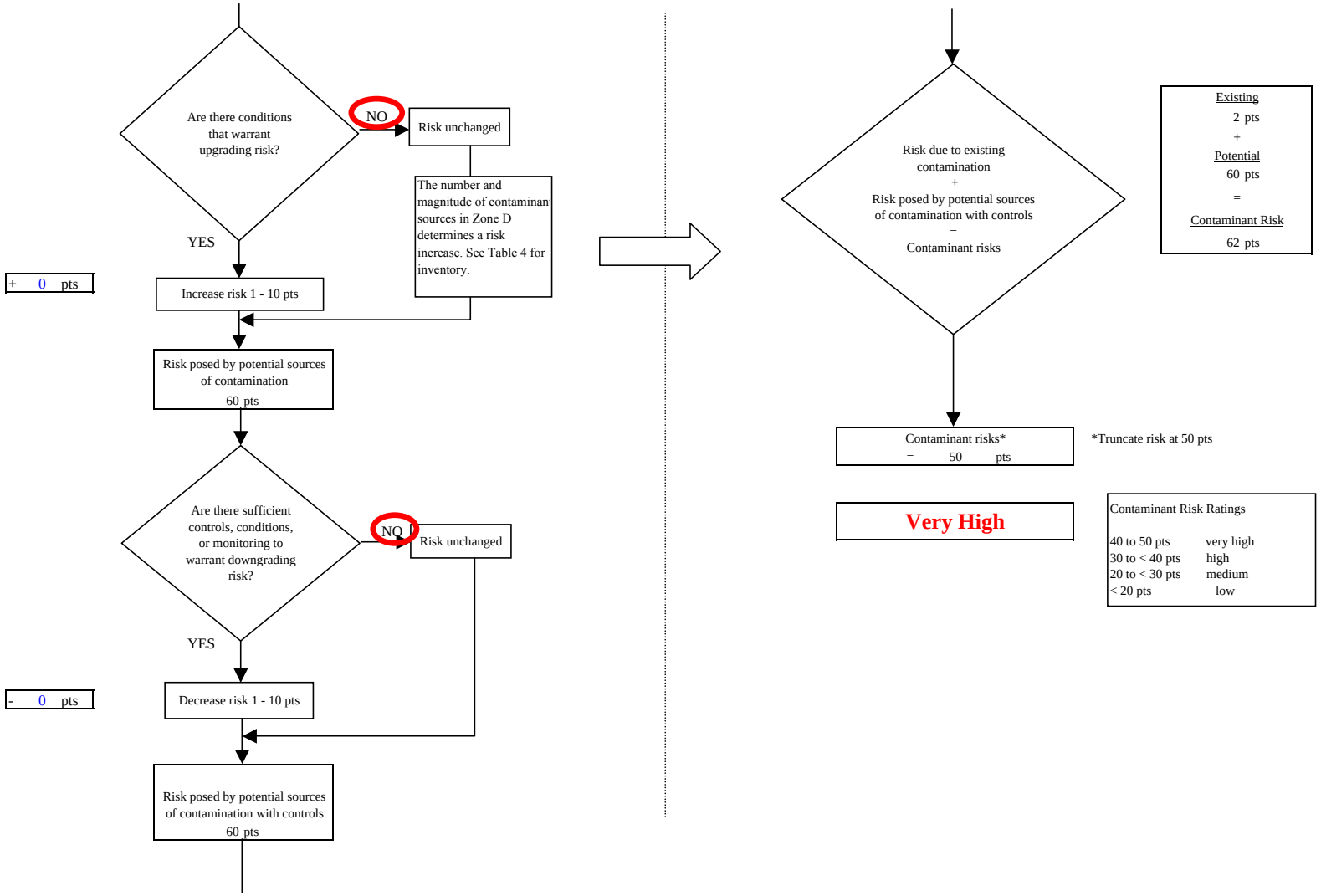


Chart 10. Vulnerability analysis for Centre Park I (PWS No. 371532.001) - Heavy Metals, Cyanide and Other Inorganic Chemicals

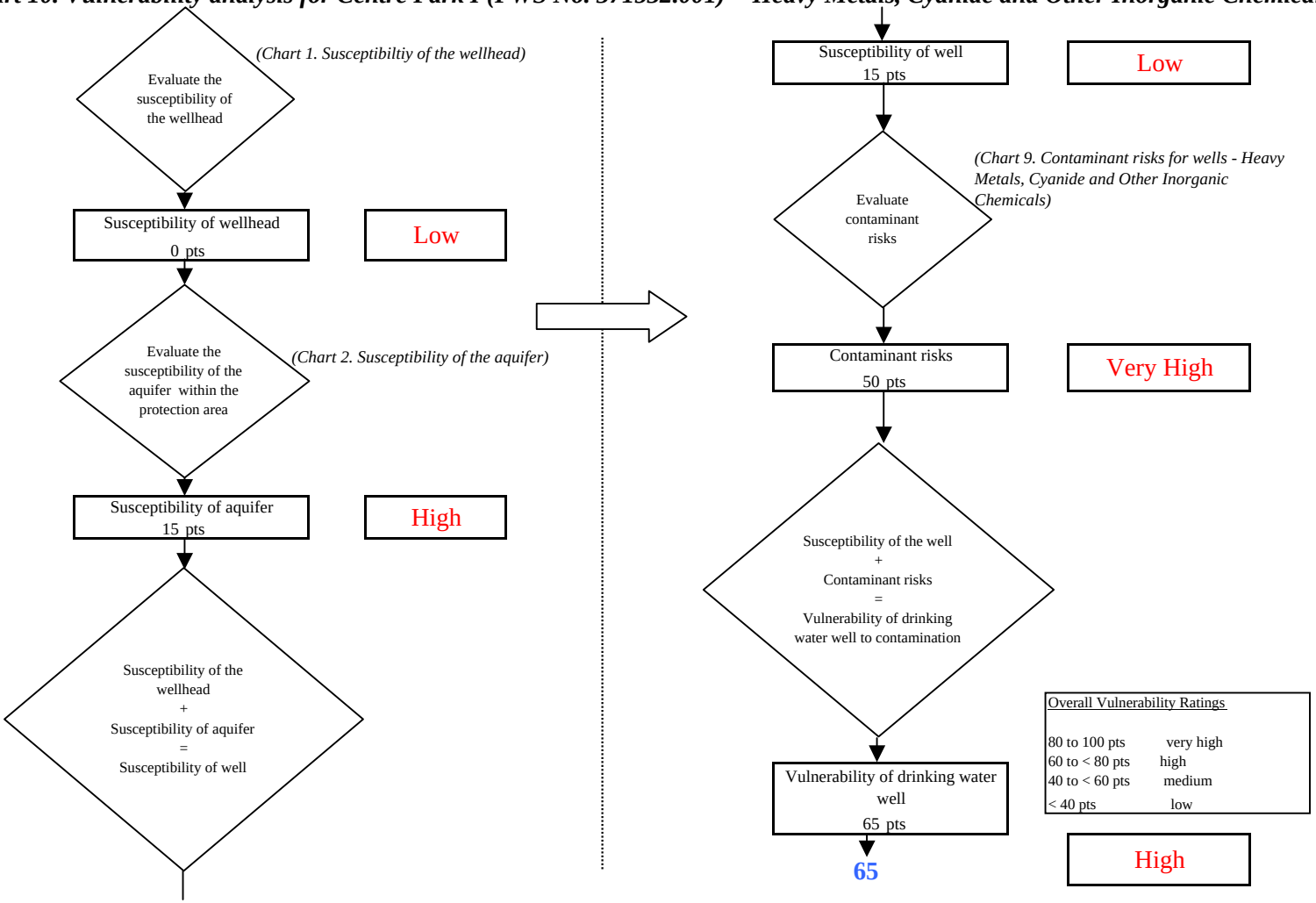


Chart 11. Contaminant risks for Centre Park I (PWS No. 371532.001) - Synthetic Organic Chemicals

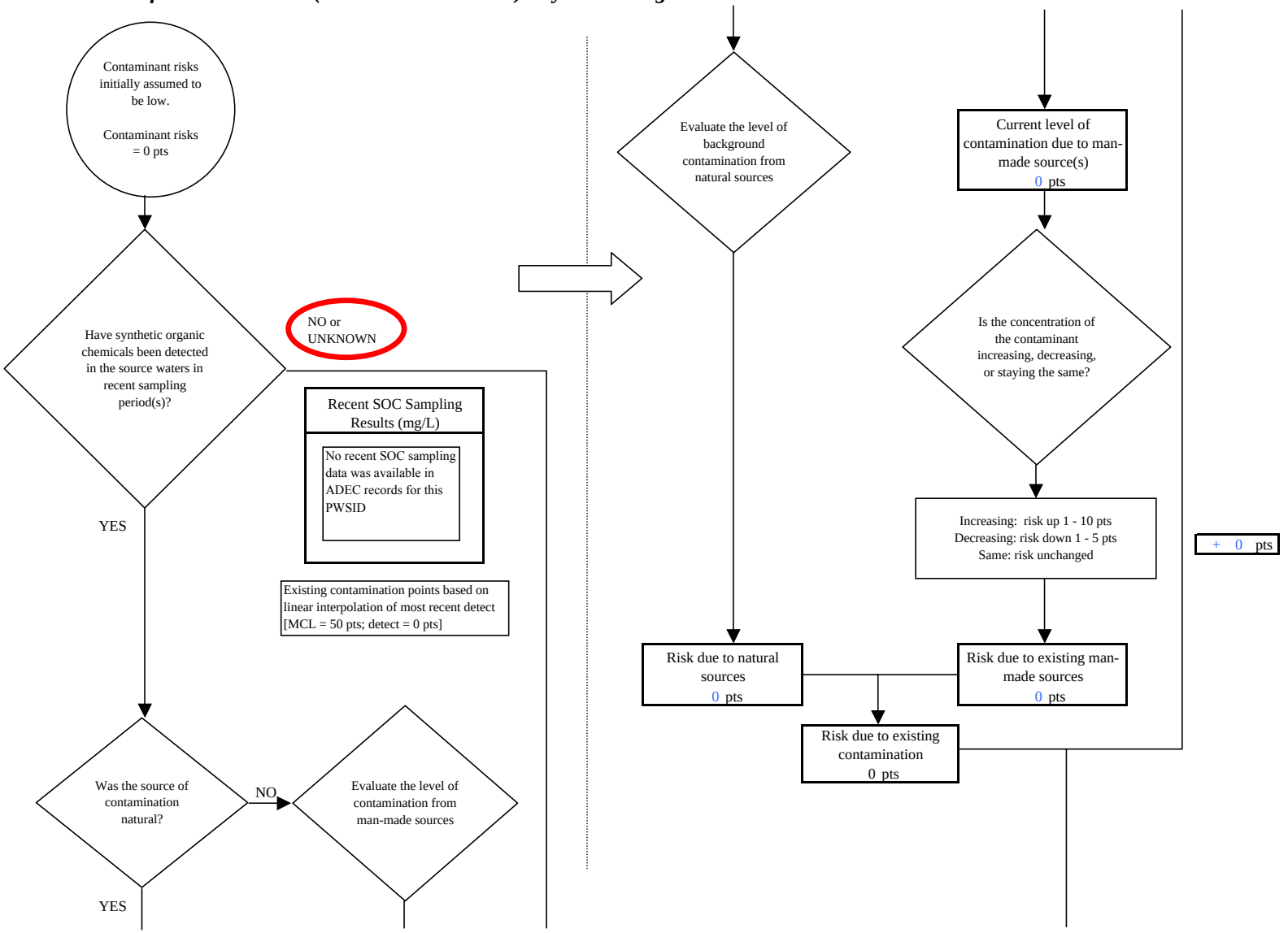
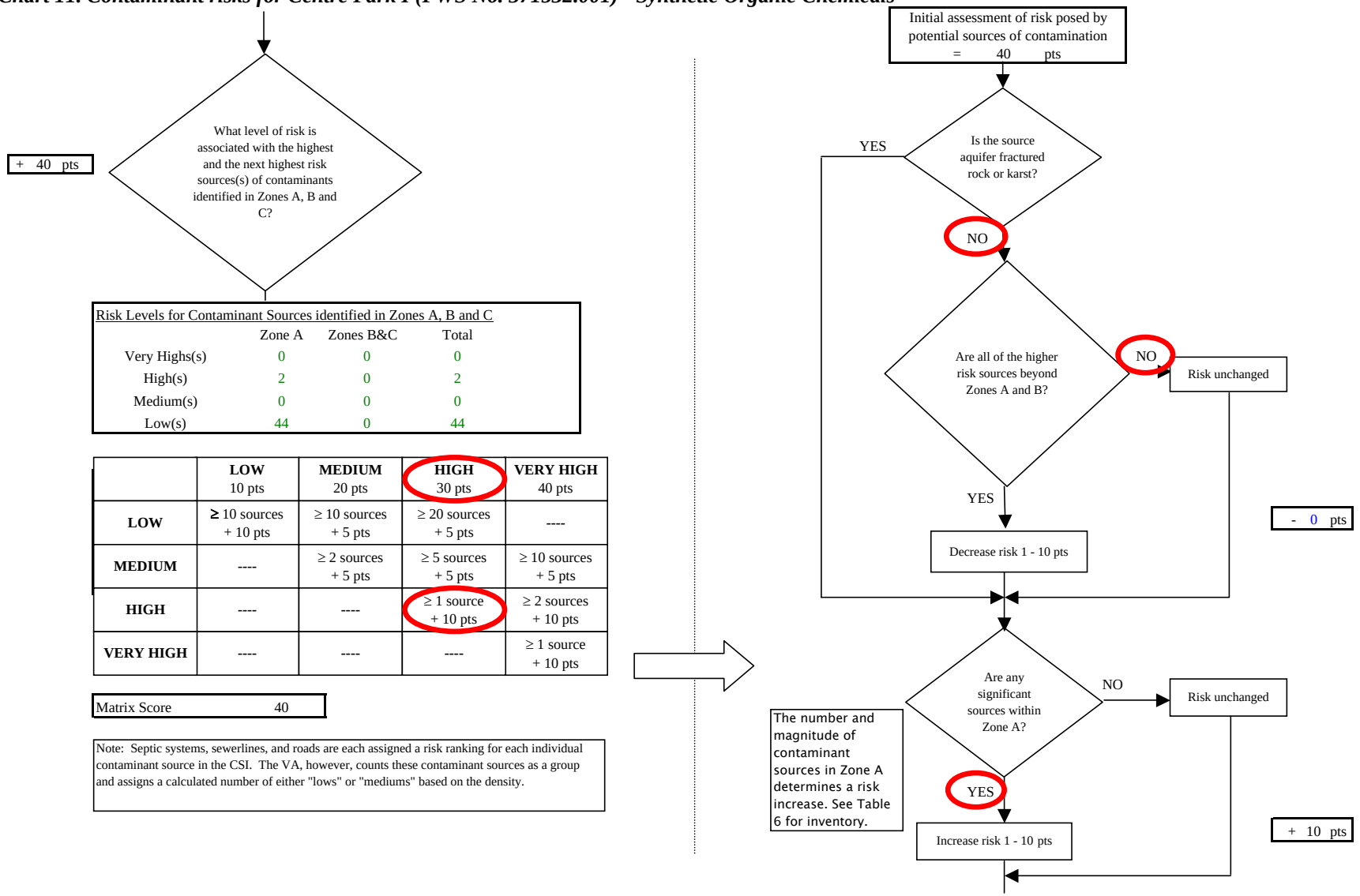


Chart 11. Contaminant risks for Centre Park I (PWS No. 371532.001) - Synthetic Organic Chemicals



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

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	2	0	2
Medium(s)	0	0	0
Low(s)	44	0	44

	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 11. Contaminant risks for Centre Park I (PWS No. 371532.001) - Synthetic Organic Chemicals

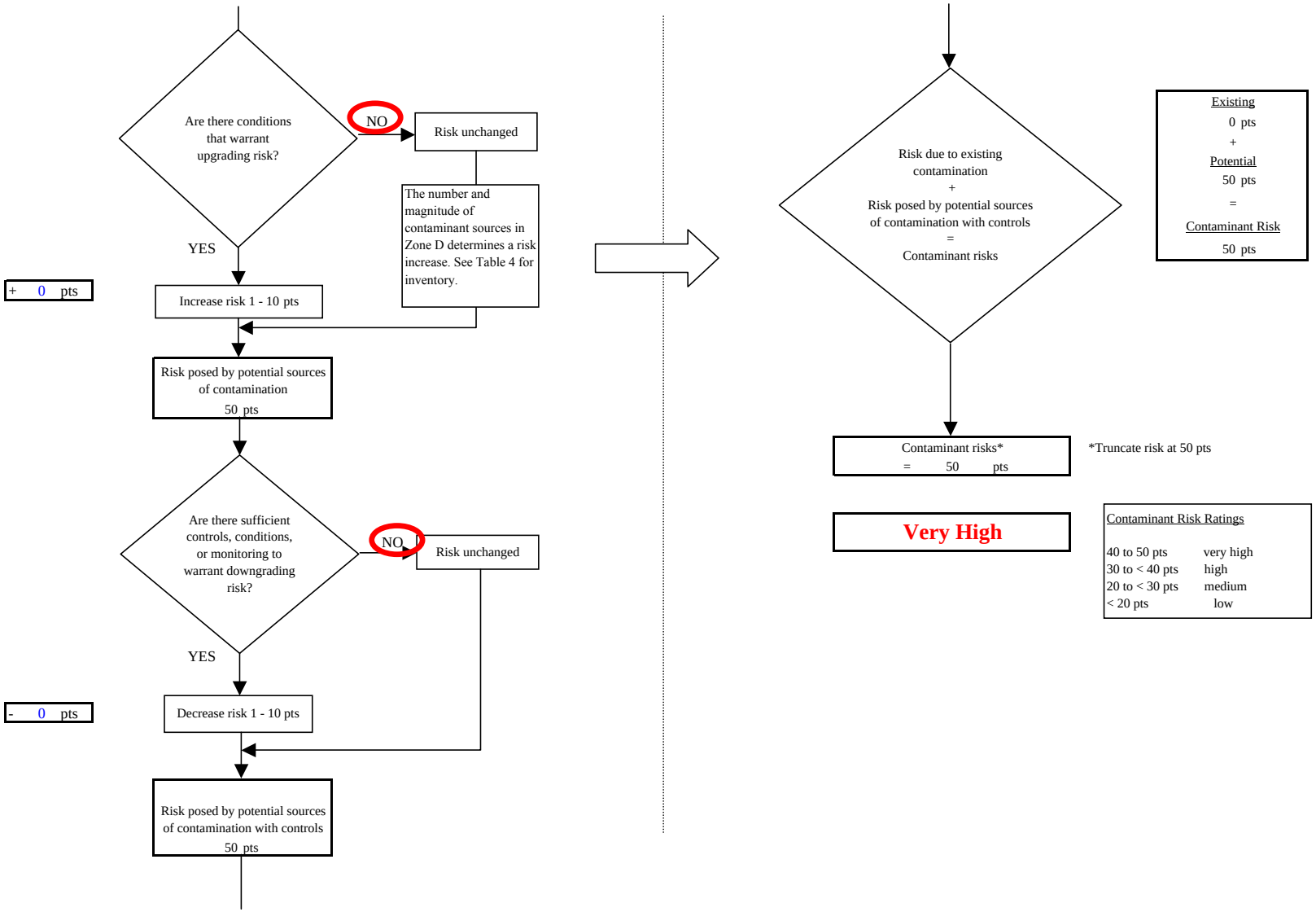


Chart 12. Vulnerability analysis for Centre Park I (PWS No. 371532.001) - Synthetic Organic Chemicals

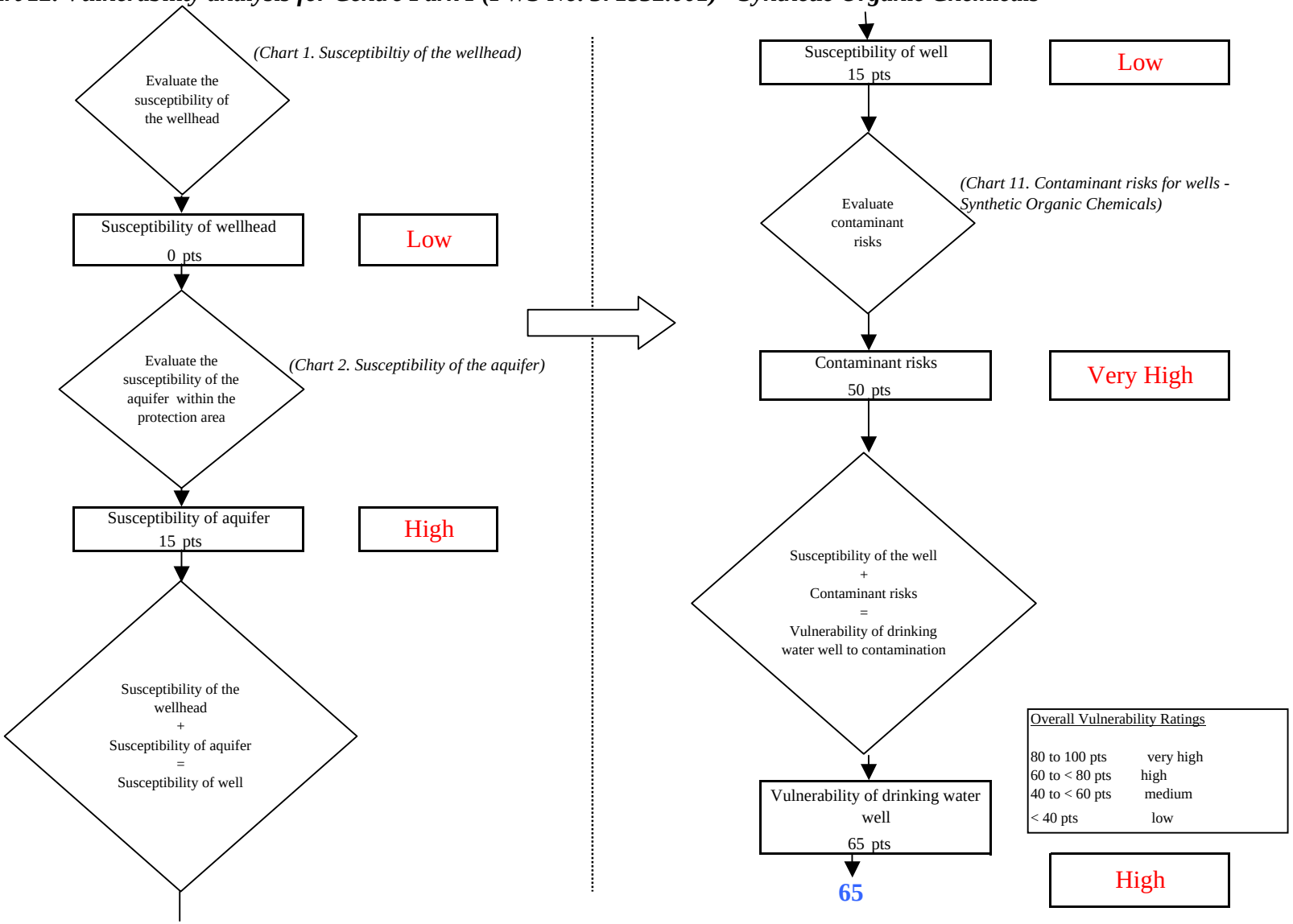


Chart 13. Contaminant risks for Centre Park I (PWS No. 371532.001) - Other Organic Chemicals

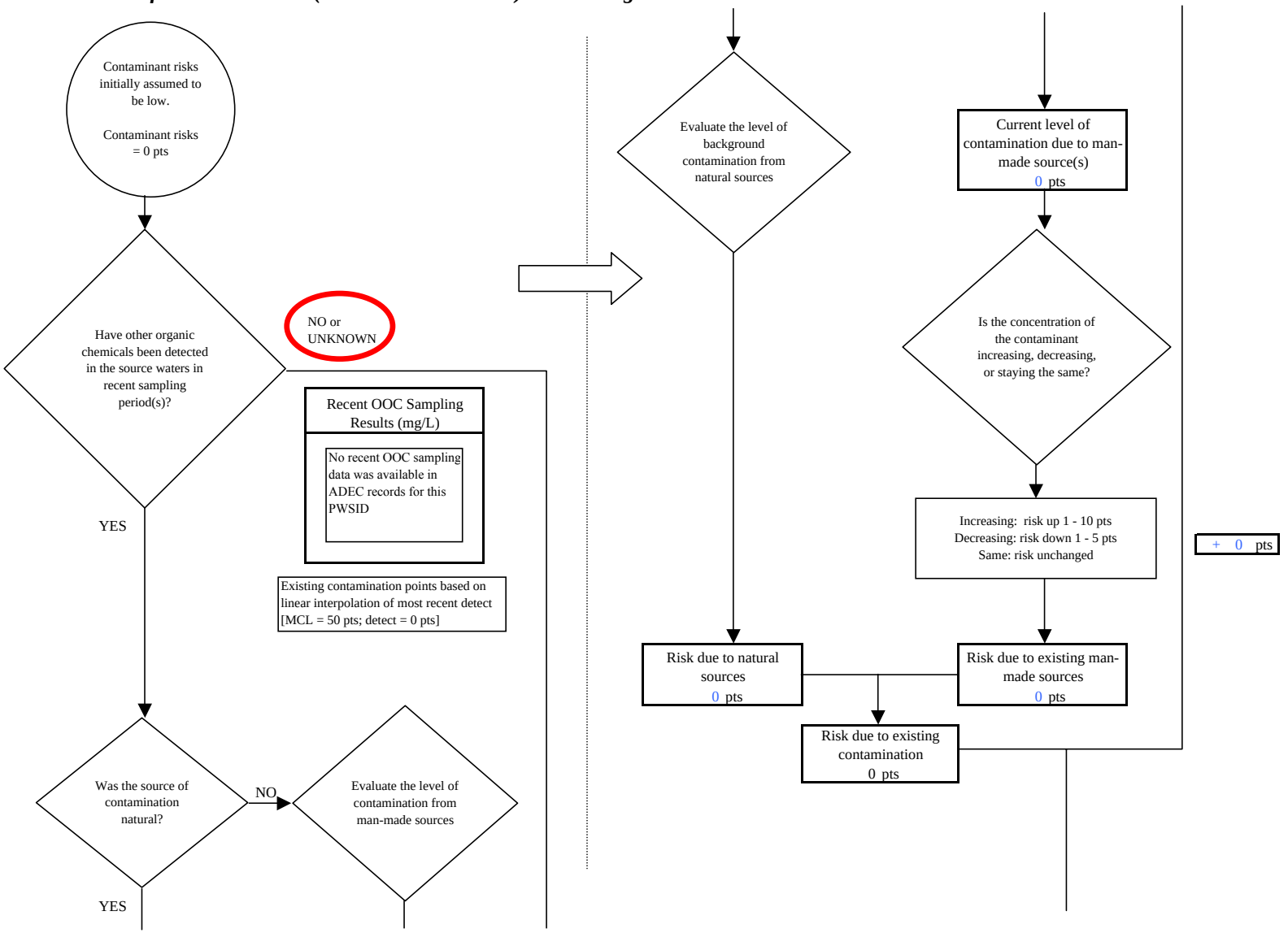
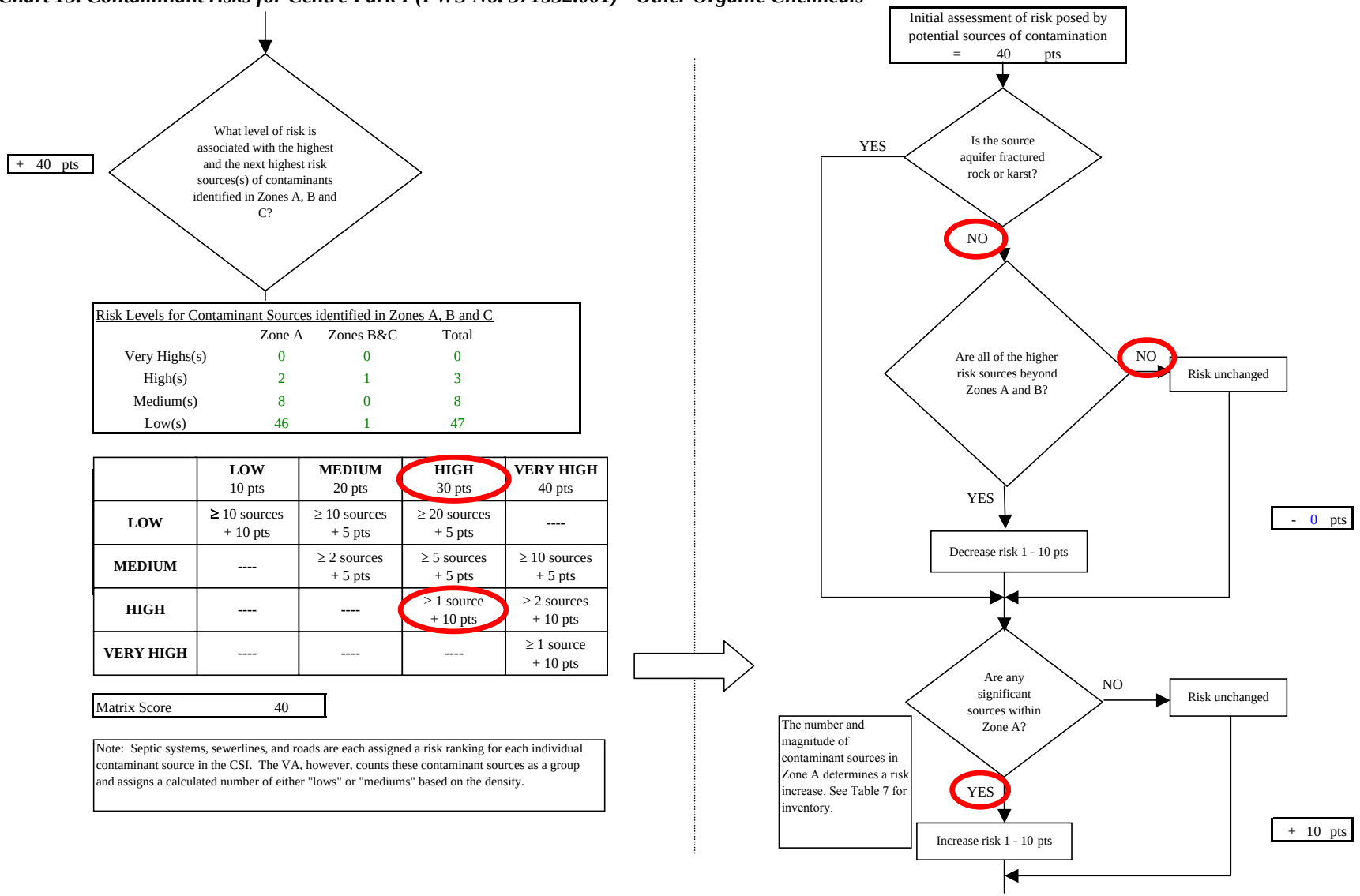


Chart 13. Contaminant risks for Centre Park I (PWS No. 371532.001) - Other Organic Chemicals



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

	Zone A	Zones B&C	Total
Very Highs(s)	0	0	0
High(s)	2	1	3
Medium(s)	8	0	8
Low(s)	46	1	47

	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 13. Contaminant risks for Centre Park I (PWS No. 371532.001) - Other Organic Chemicals

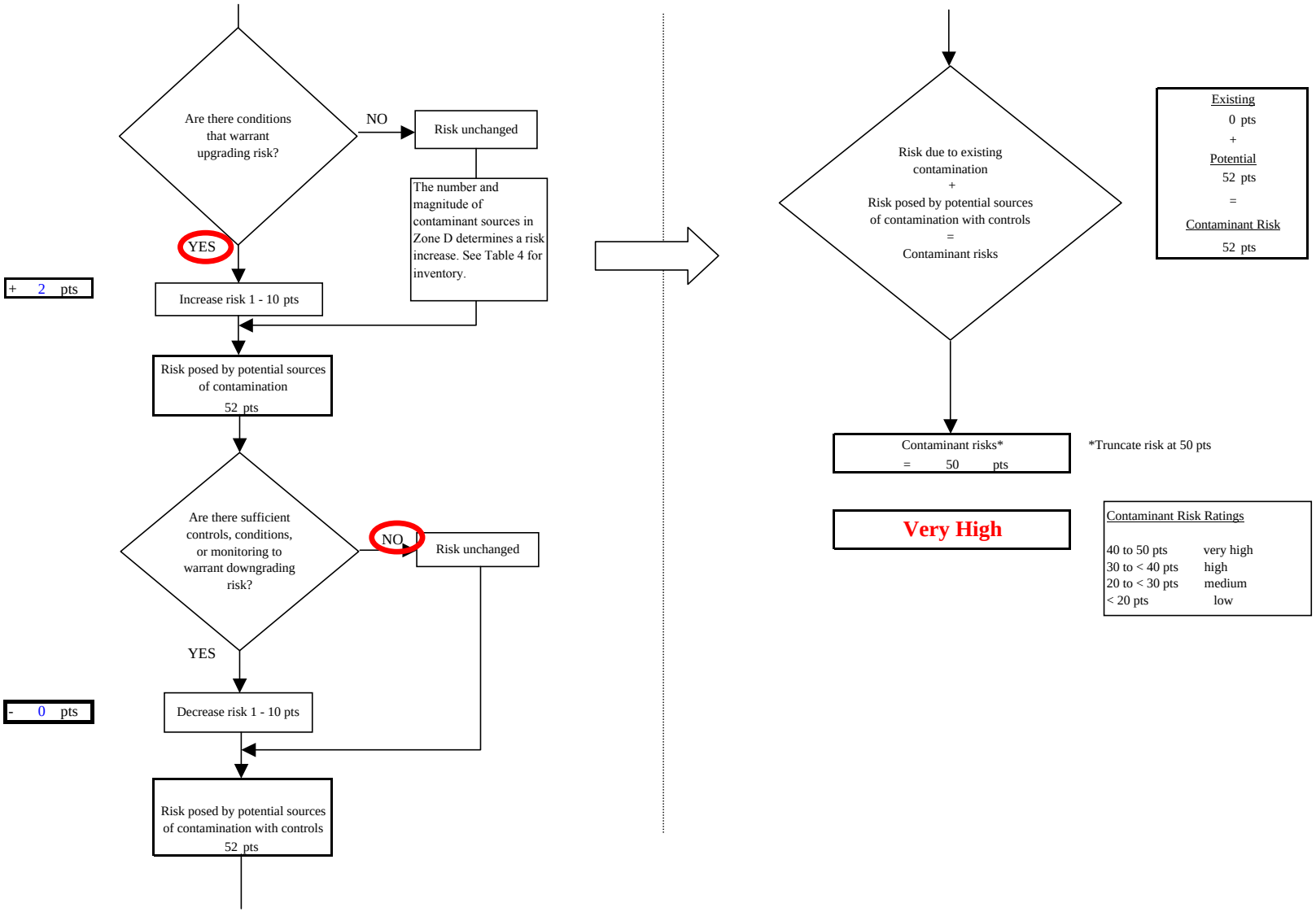


Chart 14. Vulnerability analysis for Centre Park I (PWS No. 371532.001) - Other Organic Chemicals