# *Source Water Assessment* - Potter Section House Anchorage, Alaska

A Hydrogeologic Susceptibility and Vulnerability Analysis

DRINKING WATER PROTECTION PROGRAM REPORT 147

October 2001

# *Source Water Assessment* - Potter Section House Anchorage, Alaska

By HEATHER A. HAMMOND

DRINKING WATER PROTECTION PROGRAM REPORT 147

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION: 2001

## CONTENTS


| | Page |
|---|---|
| Executive Summary | 1 |
| Introduction | 1 |
| Description of the Anchorage area, Alaska | 1 |
| Potter Section House's Public Water Source | 3 |
| Assessment/Protection Area for Potter Section House's Public Drinking Water Source | 3 |
| Inventory of Potential and Existing Contaminant Sources | 4 |
| Ranking of Contaminant Risks | 4 |
| Vulnerability of Potter Section House's Public Drinking Water Source | 4 |
| Summary | 6 |
| References Cited | 7 |


## TABLES


| | | Page |
|---|---|---|
| TABLE | 1. Natural Susceptibility - Susceptibility of the Wellhead and Aquifer to Contamination | 5 |
| | 2. Contaminant Risks | 5 |
| | 3. Overall Vulnerability of Potter Section House's Public Drinking Water Source to Contamination | 6 |


## ILLUSTRATIONS


| | | Page |
|---|---|---|
| FIGURE | 1. Index map showing the location of Anchorage, Alaska | 1 |
| | 2. Generalized hydrologic cycle in the Anchorage area | 2 |
| | 3. Map showing the location of drinking water source for Potter Section House | 3 |


## APPENDICES


APPENDIX

A. Potter Section House's Drinking Water Protection Area (Map 1)

B. Contaminant Source Inventory for Potter Section House (Table 1)
   Contaminant Source Inventory and Risk Ranking for Potter Section House – Bacteria and Viruses (Table 2)
   Contaminant Source Inventory and Risk Ranking for Potter Section House – Nitrates and/or Nitrites (Table 3)
   Contaminant Source Inventory and Risk Ranking for Potter Section House – Volatile organic chemicals (Table 4)

C. Potter Section House's Drinking Water Protection Area and Potential and Existing Contaminant Sources (Map 2 – Map 4)

D. Vulnerability Analysis for Contaminant Source Inventory and Risk Ranking for Potter Section House's Public Drinking Water Source (Chart 1 – Chart 8 and Table 1 – Table 3)

# *Source Water Assessment* - Potter Section House, Anchorage, Alaska

A Hydrogeologic Susceptibility and Vulnerability Analysis

By Heather A. Hammond

---

**Drinking Water Protection Program**
**Alaska Department of Environmental Conservation**

## EXECUTIVE SUMMARY

The Potter Section House Public Water System is a Class B (transient/non-community) drinking water source consisting of one well. Identified potential and current sources of contaminants for Potter Section House include: activities associated with highways and roads, activities along recreation trails, septic systems, sewer lines, and residential areas. These identified potential and existing sources of contamination are considered sources of bacteria and viruses, nitrates and/or nitrites, and volatile organic chemicals. Overall, the Potter Section House public water source received a vulnerability rating of **Medium** for bacteria and viruses, nitrates and/or nitrites, and volatile organic chemicals.

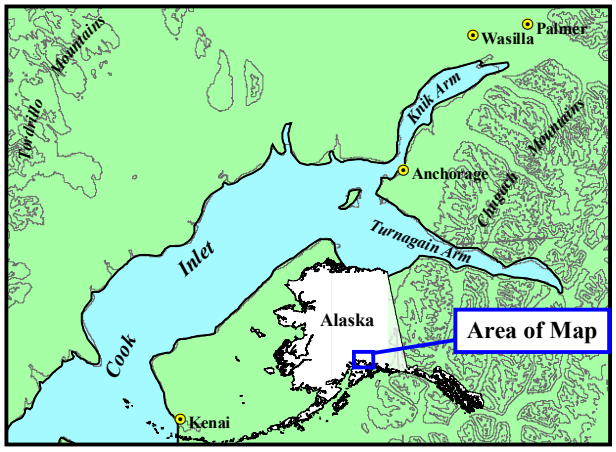



**Figure 1. Index map showing the location of Anchorage, Alaska**

## INTRODUCTION

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

## DESCRIPTION OF THE ANCHORAGE AREA, ALASKA

### Location

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

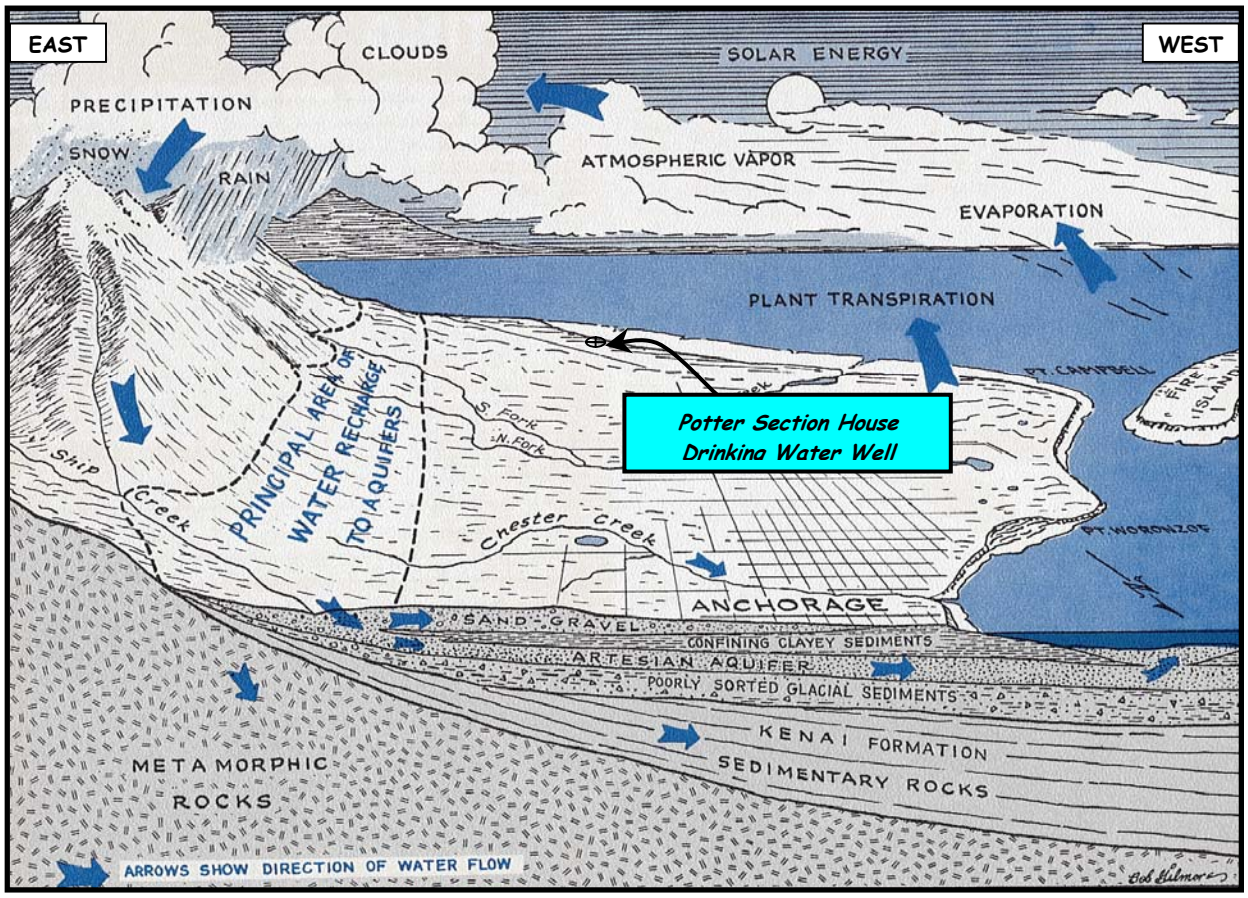



**Figure 2. Generalized hydrologic cycle in the Anchorage area [*Barnwell, George, Dearborn,Weeks, and Zenone*, 1972].**

## Climate

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

## Physiography and Groundwater Conditions

Surface elevations in the Anchorage area range from sea level at the Knik and Turnagain Arms to well over 5,000 feet in the peaks that bound the area. Glacial moraine and outwash deposits primarily mantle the surface of the Anchorage Bowl.

The backbone of the Chugach Mountains is composed primarily of metamorphic marine and volcanic rocks (bedrock). These high peaks that bound Anchorage's east-side are flanked with colluvium or slope deposits. These slope deposits eventually grade into the glacial and stream deposits at lower elevations in the Anchorage Bowl.

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

the mountain front [*Patrick, Brabets, and Glass*, 1989]. Water enters or recharges these two aquifer systems in several different ways. Along the front of the Chugach Mountains, groundwater seeps from fractures in bedrock into the sediments. At these higher elevations, rain and snowmelt also enters the sediments. This area along the mountain front is considered the principal recharge area for wells in the Anchorage area. Precipitation in the low lands may also percolate directly into the ground. Lastly, aquifers may also be recharged by streams where surface water percolates into surrounding permeable sediments (losing reaches of streams). Groundwater flow in the confined aquifer is generally east to west from the mountain front toward Cook Inlet, except in areas where the direction of flow is influenced by large municipal or industrial production wells. The direction of groundwater flow in the upper unconfined aquifer is more variable due to the influence from surfacial topography as well as its close connection with surface water bodies.

## POTTER SECTION HOUSE'S PUBLIC DRINKING WATER SOURCE

Potter Section House's public water source is a Class B (transient/non-community) water system, which is owned and operated by the State of Alaska, Division of Parks and Outdoor Recreation. The source consists of one well near the base of the Chugach Mountains and is at an elevation of approximately 250 feet above sea level. The well is located approximately 600 feet east of the New Seward Highway (see Figure 3). According to the well log, the Potter Section House well penetrates layers of silty sandy clay and fine gravel, hard clay and sedimentary bedrock to a total depth of 330 feet below land surface. According to the well log the well was not grouted. The intake was completed in bedrock and is an open hole well. Static water level was recorded at 46 feet below land surface at the time of drilling (03/11/86).

The Potter Section House water system operates year round and serves approximately 6 residents and 25 non-residents through one service connection.

## ASSESSMENT AND PROTECTION AREA FOR THE POTTER SECTION HOUSE DRINKING WATER SOURCE

The Drinking Water Protection and Assessment Area that has been established for Potter Section House is the area that is most sensitive to contamination. This area has

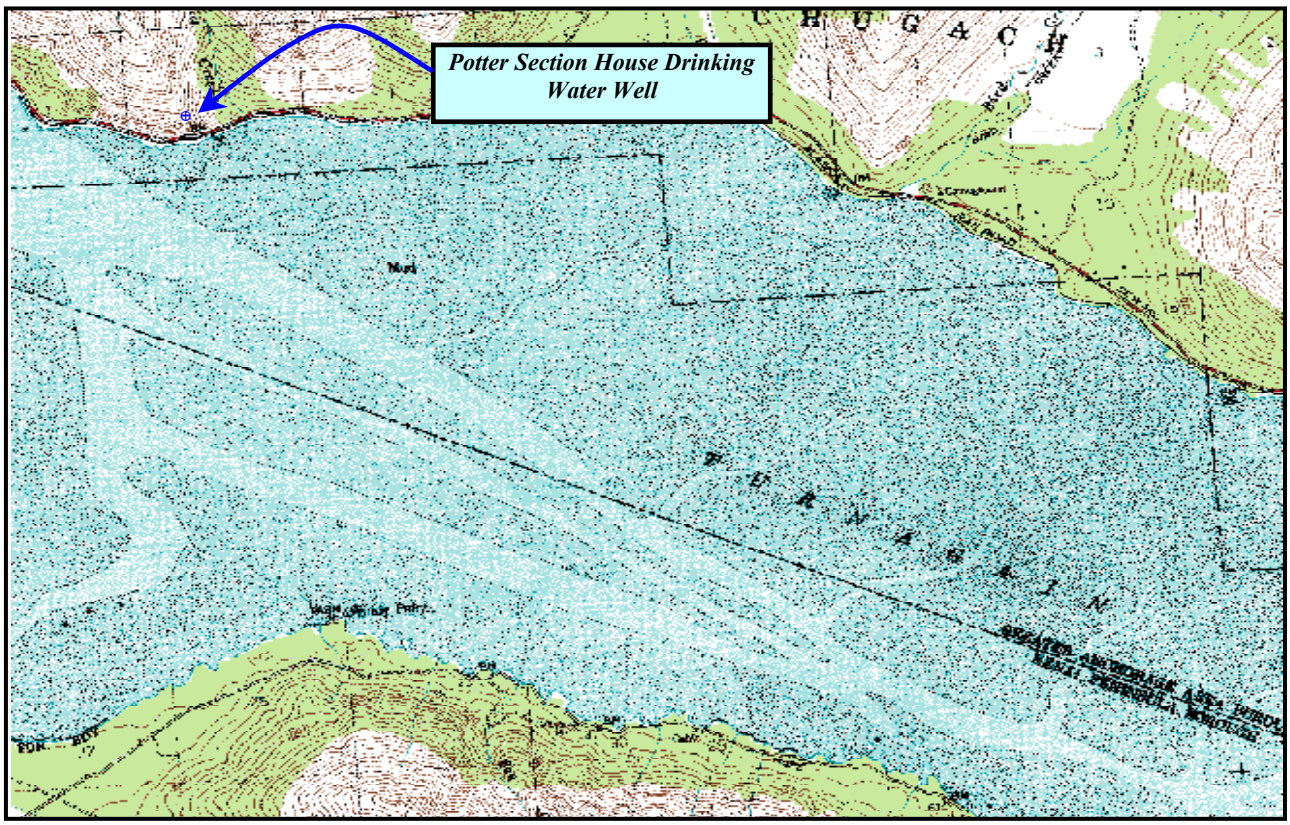



**Figure 3. Map showing the location of the drinking water source for Potter Section House** [Base: USGS Seward D7].

served as a basis for assessing the risk of the drinking water source to contamination. The zone around the drinking water source is the most critical area for the preservation of the quality of the drinking water for this source. For simplicity, this area will be known as your Drinking Water Protection Area and will serve as the area of focus for voluntary protection efforts.

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

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

Zone B corresponds to a time-of-travel of less than two years. Zones C through D correspond to those areas between 5 years and 10 years time-of-travel, respectively.

## INVENTORY OF POTENTIAL AND EXISTING CONTAMINANT SOURCES

The Drinking Water Protection Program has completed an inventory of potential and existing sources of contamination within the Drinking Water Protection Area for Potter Section House. This survey was completed through a search of agency records and other publicly available information.

Potential sources of contamination to drinking water supplies cover a wide range of categories and types. Potential drinking water contaminants are found within agricultural, residential, commercial, and industrial areas, but can also occur within areas that have little or no development.

For the basis of this assessment and all Class B public water system assessments, three categories of drinking water contaminants were inventoried. They include:

- Bacteria and viruses;
- Nitrates and/or nitrites; and
- Volatile organic chemicals.

Maps 2 through 6 in Appendix C depict the Contaminant Source Inventory for Potter Section House. Inventoried potential sources of contamination within Zones A through D were activities associated with highways and roads, activities associated with recreation trails, septic systems, sewer lines, and residential areas (see Table 1 in Appendix B). Below is a summary of the contaminant sources inventoried within the protection area for Potter Section House:

- Highways and roads;
- Recreation trails;
- Septic systems;
- Sewer lines; and
- Residential areas.

These potential contaminant sources present risk for all three categories of drinking water contaminants for the drinking water source at Potter Section House.

## RANKING OF CONTAMINANT RISKS

Potential and existing sources of contamination have been identified, sorted, and ranked according to what type and level of risk they represent. Ranking of contaminant risks for a “potential” or “existing” source of contamination is a function of toxicity and volumes of specific contaminants associated with that source. Contaminant risks are further a function of the number and density of those types of contaminant sources as well as the proximity of those sources to the well.

## VULNERABILITY OF THE POTTER SECTION HOUSE DRINKING WATER SOURCE

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

- natural susceptibility; and

- contaminant risks.

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

Natural Susceptibility (0 – 50 points)

+

Contaminant Risks (0 – 50 points)

=

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

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

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

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

The well for Potter Section House is completed in a transition zone between unconfined and confined aquifer conditions. This semi-confined aquifer condition results from the discontinuous and thinning nature of silt and clay layers near the base of the Chugach Mountains that form confining layers lower in the Anchorage Bowl. Therefore, contaminants that enter the subsurface near the base of the mountains may enter the semi-confined aquifer uninhibited by the absence of any protective layer. Private drinking water wells occur within the protection area for Potter Section House. If not properly constructed, the private wells can provide a quick path for contaminants to the subsurface. Therefore, the presence of the private wells increase the likelihood of contaminants reaching the source aquifer.

Potter Section House's well penetrates layers of silty sandy clay and fine gravel, 9 feet of hard clay (semi-confining unit) and sedimentary bedrock. The semi-confining unit of hard clay extends from 19 to 28 feet below land surface and may provide a protective barrier against the movement of contaminants in the subsurface. Static water level is 46 feet below land surface. The well log does not indicate that the well was grouted at the time of drilling. Proper grouting can provide a protective barrier against the movement of contaminants along well casing.

Combining the susceptibility of the wellhead and the aquifer to contamination leads to a score (0 – 50 points) and rating of overall Susceptibility of the well to contamination (See Appendix D). Table 1 shows the overall Susceptibility score and rating for Potter Section House.

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

| | Score | Rating |
|---|---|---|
| Susceptibility of the Wellhead | 5 | Low |
| Susceptibility of the Aquifer | 17 | High |
| Natural Susceptibility | 22 | Medium |

Contaminant risks to a drinking water source depend on the type, number or density, and distribution of contaminant sources. Highways and roads and septic systems contribute the highest risk for potential contamination to Potter Section House's source of public drinking water.

A score (0 – 50 points) and rating of Contaminant Risks (See Appendix D) is assigned based on the findings of the Contaminant Source Inventory (Appendix B - Table 1 – Table 4). This portion of the analysis examines any existing or historical contamination that has been detected at the drinking water source through routine sampling. It also reviews contamination that has or may have occurred but has not arrived or been detected at the well. Table 2 through Table 4 summarizes the Contaminant Risks for each category of drinking water contaminants.

**Table 2. Contaminant Risks**

| Contaminant Risks | Score | Rating |
|---|---|---|
| Bacteria and Viruses | 30 | Medium |
| Nitrates and/or Nitrites | 35 | High |
| Volatile Organic Chemicals | 22 | Medium |

Appendix D contains eight charts, which together form the 'Vulnerability Analysis' for a source water

assessment for a Class B public drinking water source. Chart 1 analyzes the 'Susceptibility of the Wellhead' to contamination by looking at the construction of the well and its surrounding area. Chart 2 analyzes the 'Susceptibility of the Aquifer' to contamination by looking at the naturally occurring attributes of the water source and influences on the groundwater system that might lead to contamination. Chart 3 analyzes 'Contaminant Risks' for the drinking water source with respect to bacteria and viruses. The 'Contaminant Risks' portion of the analysis considers potential sources of contaminants as well as a review of contamination that has or may have occurred but has not arrived or been detected at the well. Lastly, Chart 4 contains the 'Vulnerability Analysis for Bacteria and Viruses'. Charts 5 through 8 contain the Contaminant Risks and Vulnerability Analysis for nitrates and nitrites, and volatile organic chemicals, respectively.

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

**Table 3. Overall Vulnerability of the Potter Section House Public Drinking Water Source to Contamination by Category**

| Category | Score | Rating |
|---|---|---|
| Bacteria and Viruses | 50 | Medium |
| Nitrates and Nitrites | 55 | Medium |
| Volatile Organic Chemicals | 45 | Medium |

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

The overall vulnerability score for nitrates and/or nitrites for Potter Section House's drinking water source is medium. The sewer line and recreation trails along Potter Valley Road, and the density of septic systems within the protection area along with residential areas drive the overall vulnerability score for nitrates and/or nitrites.

Nitrates and/or nitrites are found in natural background concentration at the site, as elsewhere in Alaska. Nitrate concentrations in uncontaminated groundwater are typically less than 2 milligrams per liter (mg/L) and are derived primarily from the decomposition of soil organic matter [Wang, Strelakos, Jokela, 2000].

Sampling history of Potter Section House's source waters indicate low concentrations of nitrates (See Chart 5 – Contaminant Risks for nitrates and/or nitrites in Appendix D). Existing nitrate contamination is approximately 0.13 mg/L or 1.3% of the allowable limit (MCL) for this contaminant. The Maximum Contaminant Level or MCL is the maximum level of contaminant that is allowed to exist in drinking water and still be consumed by humans without harmful health effects. Due to the high solubility and weak retention by soil, nitrates are very mobile in soil, moving at approximately the same rate as water.
Though existing contamination was detected at the site in natural background concentrations for nitrates, the amount detected remains at very safe levels with respect to human health.

The overall vulnerability score for bacteria and viruses and volatile organic chemicals for the Potter Section House source of drinking water is medium. The sewer line along Potter Valley Road and the density of septic systems in Zone A through Zone C along with highways and roads drive the overall vulnerability score for bacteria and viruses and volatile organic chemicals. Because roads do pose potential for fuel spills to occur, highways and roads are ranked as very low potential sources of volatile organic chemicals along with bacteria and viruses and nitrates and/or nitrites.

Other low potential and existing sources of bacteria and viruses and volatile organic chemicals for Potter Section House's source of drinking water include activities associated with residential areas and recreation trails that are within the protection area.

**SUMMARY**

A *Source Water Assessment* has been completed for the Potter Section House source of public drinking water. The overall vulnerability of this source to contamination is **Medium** for bacteria and viruses, nitrates and/or nitrites and volatile organic chemicals. This assessment of contaminant risks can be used as a foundation for local voluntary protection efforts as well as a basis for the continuous efforts on the part of Potter Section House 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 public drinking water source.

# REFERENCES CITED

Barnwell, W.W., George, R.S., Dearborn, L.L., Weeks, J.B., and Zenone, C., 1972, Water for Anchorage: an atlas of the water resources of the Anchorage area, Alaska: U.S. Geological Survey Open-File Report, 76 p.

Patrick, L.D., Brabets, T.P., and Glass, R.L., 1989, Simulation of ground-water flow at Anchorage, Alaska: U.S. Geological Survey Water-Resources Investigations Report 88-4139, 41p.

Ulery, C.A. and Updike, R.G, 1983, Subsurface structure of the cohesive facies of the Bootlegger Cove Formation, Southwest Anchorage, Alaska: Alaska Division of Geological and Geophysical Surveys Professional Report 84, 5 p.

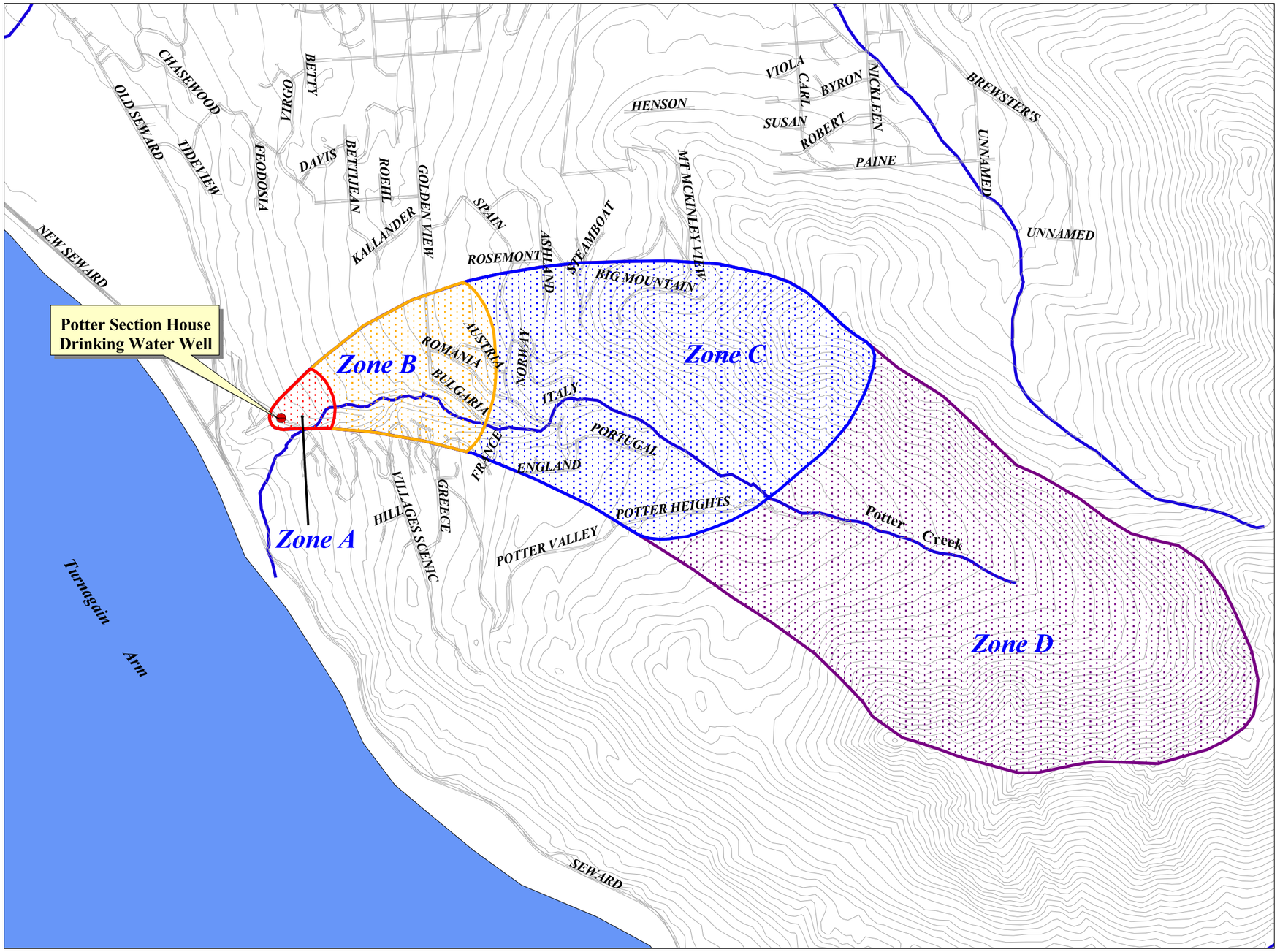
Wang, B., Strelakos, P.M., and Jokela, B., 2000, Nitrate Source Indicators In Groundwater of the Scimitar Subdivision, Peters Creek Area, Anchorage Alaska: U.S. Geological Survey Water-Resources Investigations Report 00-4137, 25p.

Western Regional Climate Center, 2000, August 24, Web extension to the *Western Regional Climate Center* [WWW document]. URL http://www.wrcc.dri.edu/index.html

# APPENDIX A

## Potter Section House's
## Drinking Water Protection Area

# Potter Section House
# Drinking Water Protection Area




- Potter Section House Well

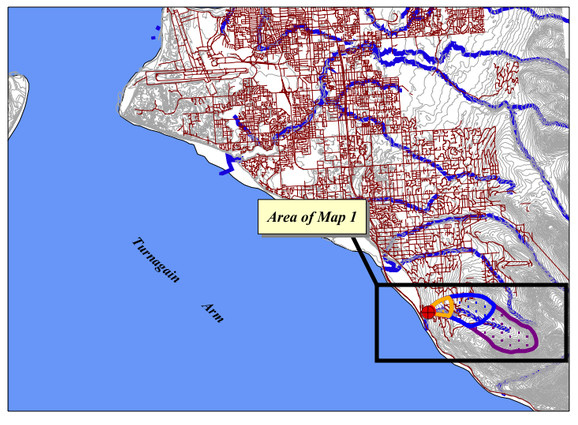
**Zone A Protection Area**
- Several Months Travel Time

**Zone B Protection Area**
- Less than 2 Years Travel Time

**Zone C Protection Area**
- Less Than 5 Years Travel Time

**Zone D Protection Area**
- Less Than 10 Years Travel Time
- Roads
- Elevation Contours
- Anchorage Streams
- Tunagain Arm of Cook Inlet

N
W E
S




1 0 1 2 Miles

**PWSID 211342.001**

***Map 1***

# APPENDIX B

# Contaminant Source Inventory and Risk Ranking for Potter Section House

**Table 1** **Contaminant Source Inventory and Risk Ranking for Potter Section House** **PWSID 211342.001**

| Contaminant Source Type | Comtaminant Source ID | CS ID Tag | Zone | Risk Ranking For Analysis | Map Number | Comments |
|---|---|---|---|---|---|---|
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-1 | A | Sewer line along Potter Valley Road | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-1 | A | Potter Valley Road | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-2 | A | Potter Crest Circle | 2 | |
| Dog walking areas/foot trails | X46 | X46-1 | A | Trail along west side of Potter Valley Road | 2 | |
| Dog walking areas/foot trails | X46 | X46-2 | A | Trail along east side of Potter Valley Road | 2 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-2 | B | Sewer line along Potter Valley Road | 2 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-3 | B | Sewer line along King Eider Lane | 2 | |
| Residential Areas | R1 | R1-1 | B | Residential areas located within Zone B | 4 | |
| Septic systems (serves one single-family home) | R2 | R2-1 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-10 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-11 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-12 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-13 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-14 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-15 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-16 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-17 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-18 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-19 | B | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-2 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-20 | B | Along Greece Circle | 4 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-21 | B | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-22 | B | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-23 | B | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-24 | B | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-25 | B | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-26 | B | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-27 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-28 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-29 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-3 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-30 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-31 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-32 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-33 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-34 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-35 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-36 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-37 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-38 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-39 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-4 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-40 | B | Along Bulgaria Drive | 4 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-41 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-42 | B | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-43 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-44 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-45 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-46 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-47 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-48 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-49 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-5 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-50 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-51 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-52 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-53 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-54 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-55 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-56 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-57 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-58 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-59 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-6 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-60 | B | Along Romania Drive | 4 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-61 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-62 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-63 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-64 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-65 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-66 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-67 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-68 | B | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-69 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-7 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-70 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-71 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-72 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-73 | B | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-74 | B | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-75 | B | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-8 | B | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-9 | B | Along Kittiwake Circle | 4 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-10 | B | Austria Court | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-11 | B | Golden View Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-3 | B | Kitiwake Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-4 | B | King Eider Lane | 2 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Highways and roads, paved (cement or asphalt) | X20 | X20-5 | B | Greece Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-6 | B | Greece Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-7 | B | Bulgaria Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-8 | B | Romania Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-9 | B | Austria Drive | 2 | |
| Municipal or city parks (with green areas) | X4 | X4-1 | B | Northeast section of Zone B | 4 | |
| Dog walking areas/foot trails | X46 | X46-3 | B | Trail along west side of Golden View Drive | 2 | |
| Dog walking areas/foot trails | X46 | X46-4 | B | Trail along east side of Golden View Drive | 2 | |
| Municipal or city parks (with green areas) | X4 | X4-2 | B,C | Along Potter Creek | 45 | |
| Soap and detergent manufacturing | I42 | I42-1 | C | Along Italy Circle | 5 | |
| Residential Areas | R1 | R1-2 | C | Residential areas located within Zone A | 5 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-76-227 | C | All septic systems within Zone C | 5 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-12 - 3 | C | All roads located within Zone C | 3 | |
| Dog walking areas/foot trails | X46 | X46-5 | C | Trail along south side of Potter Valley Heights | 5 | |
| Dog walking areas/foot trails | X46 | X46-6 | C | Trail along east side of Rosemont Drive | 5 | |
| Dog walking areas/foot trails | X46 | X46-7 | C | Zone C and running along Potter Creek | 5 | |

**Table 2**

**Contaminant Source Inventory and Risk Ranking for**
**Potter Section House**
**Sources of Bacteria and Viruses**

**PWSID 211342.001**

| Contaminant Source Type | Contaminant Source ID | CS ID Tag | Zone | Risk Ranking for Analysis | Overall Rank After Analysis | Location | Map Number | Comments |
|---|---|---|---|---|---|---|---|---|
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-1 | A | Low | 1 | Sewer line along Potter Valley Road | 2 | |
| Dog walking areas/foot trails | X46 | X46-1 | A | Low | 2 | Trail along west side of Potter Valley Road | 2 | |
| Dog walking areas/foot trails | X46 | X46-2 | A | Low | 3 | Trail along east side of Potter Valley Road | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-1 | A | Very Low | 4 | Potter Valley Road | 2 | |
| Residential Areas | R1 | R1-1 | B | Low | 5 | Residential areas located within Zone B | 4 | |
| Septic systems (serves one single-family home) | R2 | R2-1 | B | Very Low | 6 | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-2 | B | Very Low | 7 | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-3 | B | Very Low | 8 | Along Potter Valley Road | 4 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-2 | B | Low | 9 | Sewer line along Potter Valley Road | 2 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-3 | B | Low | 10 | Sewer line along King Eider Lane | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-2 | A | Very Low | | Potter Crest Circle | 2 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-10 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-11 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-12 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-13 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-14 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-15 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-16 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-17 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-18 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-19 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-20 | B | Very Low | | Along Greece Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-21 | B | Very Low | | Along Greece Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-22 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-23 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-24 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-25 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-26 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-27 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-28 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-29 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-30 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-31 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-32 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-33 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-34 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-35 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-36 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-37 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-38 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-39 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-4 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-40 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-41 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-42 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-43 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-44 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-45 | B | Very Low | | Along Romania Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-46 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-47 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-48 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-49 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-5 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-50 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-51 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-52 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-53 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-54 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-55 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-56 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-57 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-58 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-59 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-6 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-60 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-61 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-62 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-63 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-64 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-65 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-66 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-67 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-68 | B | Very Low | | Along Romania Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-69 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-7 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-70 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-71 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-72 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-73 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-74 | B | Very Low | | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-75 | B | Very Low | | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-8 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-9 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-10 | B | Very Low | | Austria Court | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-11 | B | Very Low | | Golden View Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-3 | B | Very Low | | Kitiwake Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-4 | B | Very Low | | King Eider Lane | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-5 | B | Very Low | | Greece Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-6 | B | Very Low | | Greece Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-7 | B | Very Low | | Bulgaria Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-8 | B | Very Low | | Romania Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-9 | B | Very Low | | Austria Drive | 2 | |
| Municipal or city parks (with green areas) | X4 | X4-1 | B | Medium | | Northeast section of Zone B | 4 | |
| Dog walking areas/foot trails | X46 | X46-3 | B | Low | | Trail along west side of Golden View Drive | 2 | |
| Dog walking areas/foot trails | X46 | X46-4 | B | Low | | Trail along east side of Golden View Drive | 2 | |
| Municipal or city parks (with green areas) | X4 | X4-2 | B,C | Medium | | Along Potter Creek | 45 | |
| Residential Areas | R1 | R1-2 | C | Low | | Residential areas located within Zone A | 5 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-76-227 | C | Very Low | | All septic systems within Zone C | 5 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Highways and roads, paved (cement or asphalt) | X20 | X20-12 - 3 | C | Very Low | | All roads located within Zone C | 3 | |
| Dog walking areas/foot trails | X46 | X46-5 | C | Low | | Trail along south side of Potter Valley Heights | 5 | |
| Dog walking areas/foot trails | X46 | X46-6 | C | Low | | Trail along east side of Rosemont Drive | 5 | |
| Dog walking areas/foot trails | X46 | X46-7 | C | Low | | Zone C and running along Potter Creek | 5 | |

**Table 3**

**Contaminant Source Inventory and Risk Ranking for**
**Potter Section House**
**Sources of Nitrates/Nitrites**

**PWSID 211342.001**

| Contaminant Source Type | Contaminant Source ID | CS ID Tag | Zone | Risk Ranking for Analysis | Overall Rank After Analysis | Location | Map Number | Comments |
|---|---|---|---|---|---|---|---|---|
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-1 | A | Very Low | 1 | Sewer line along Potter Valley Road | 2 | |
| Dog walking areas/foot trails | X46 | X46-1 | A | Low | 2 | Trail along west side of Potter Valley Road | 2 | |
| Dog walking areas/foot trails | X46 | X46-2 | A | Low | 3 | Trail along east side of Potter Valley Road | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-1 | A | Very Low | 4 | Potter Valley Road | 2 | |
| Residential Areas | R1 | R1-1 | B | Low | 5 | Residential areas located within Zone B | 4 | |
| Septic systems (serves one single-family home) | R2 | R2-1 | B | Very Low | 6 | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-2 | B | Very Low | 7 | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-3 | B | Very Low | 8 | Along Potter Valley Road | 4 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-2 | B | Very Low | 9 | Sewer line along Potter Valley Road | 2 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-3 | B | Very Low | 10 | Sewer line along King Eider Lane | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-2 | A | Very Low | | Potter Crest Circle | 2 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-10 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-11 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-12 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-13 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-14 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-15 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-16 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-17 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-18 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-19 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-21 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-26 | B | Very Low | | Along Greece Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-29 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-30 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-31 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-32 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-33 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-34 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-35 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-36 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-37 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-38 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-39 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-4 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-40 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-41 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-42 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-43 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-44 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-45 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-46 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-47 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-48 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-49 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-5 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-50 | B | Very Low | | Along Romania Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-51 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-52 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-53 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-54 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-55 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-56 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-57 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-58 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-59 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-6 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-60 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-61 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-62 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-63 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-64 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-65 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-66 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-67 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-68 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-69 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-7 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-70 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-71 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-72 | B | Very Low | | Along Austria Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-73 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-74 | B | Very Low | | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-75 | B | Very Low | | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-8 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-9 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-10 | B | Very Low | | Austria Court | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-11 | B | Very Low | | Golden View Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-3 | B | Very Low | | Kitiwake Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-4 | B | Very Low | | King Eider Lane | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-5 | B | Very Low | | Greece Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-6 | B | Very Low | | Greece Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-7 | B | Very Low | | Bulgaria Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-8 | B | Very Low | | Romania Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-9 | B | Very Low | | Austria Drive | 2 | |
| Municipal or city parks (with green areas) | X4 | X4-1 | B | Medium | | Northeast section of Zone B | 4 | |
| Dog walking areas/foot trails | X46 | X46-3 | B | Low | | Trail along west side of Golden View Drive | 2 | |
| Residential Areas | R1 | R1-2 | C | Low | | Residential areas located within Zone A | 5 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-76-227 | C | Very Low | | All septic systems within Zone C | 5 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-12 - 3 | C | Very Low | | All roads located within Zone C | 3 | |
| Dog walking areas/foot trails | X46 | X46-6 | C | Low | | Trail along east side of Rosemont Drive | 5 | |
| Dog walking areas/foot trails | X46 | X46-7 | C | Low | | Zone C and running along Potter Creek | 5 | |

**Table 4**

**Contaminant Source Inventory and Risk Ranking for**
**Potter Section House**
**Sources of Volatile Organic Chemicals**

**PWSID 211342.001**

| Contaminant Source Type | Contaminant Source ID | CS ID Tag | Zone | Risk Ranking for Analysis | Overall Rank After Analysis | Location | Map Number | Comments |
|---|---|---|---|---|---|---|---|---|
| Highways and roads, paved (cement or asphalt) | X20 | X20-1 | A | Low | 1 | Potter Valley Road | 2 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-1 | A | Low | 2 | Sewer line along Potter Valley Road | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-2 | A | Low | 3 | Potter Crest Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-3 | B | Low | 4 | Kitiwake Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-4 | B | Low | 5 | King Eider Lane | 2 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-2 | B | Low | 6 | Sewer line along Potter Valley Road | 2 | |
| Domestic wastewater collection systems (sewer lines or lift stations) | D1 | D1-3 | B | Low | 7 | Sewer line along King Eider Lane | 2 | |
| Septic systems (serves one single-family home) | R2 | R2-1 | B | Very Low | 8 | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-2 | B | Very Low | 9 | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-3 | B | Very Low | 10 | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-10 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-11 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-12 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-13 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-14 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-15 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-16 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-17 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-18 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-19 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-20 | B | Very Low | | Along Greece Circle | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-21 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-22 | B | Very Low | | Along Greece Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-23 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-24 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-25 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-26 | B | Very Low | | Along Greece Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-27 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-28 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-29 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-30 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-31 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-32 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-33 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-34 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-35 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-36 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-37 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-38 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-39 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-4 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-40 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-41 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-42 | B | Very Low | | Along Bulgaria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-43 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-44 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-45 | B | Very Low | | Along Romania Drive | 4 | |

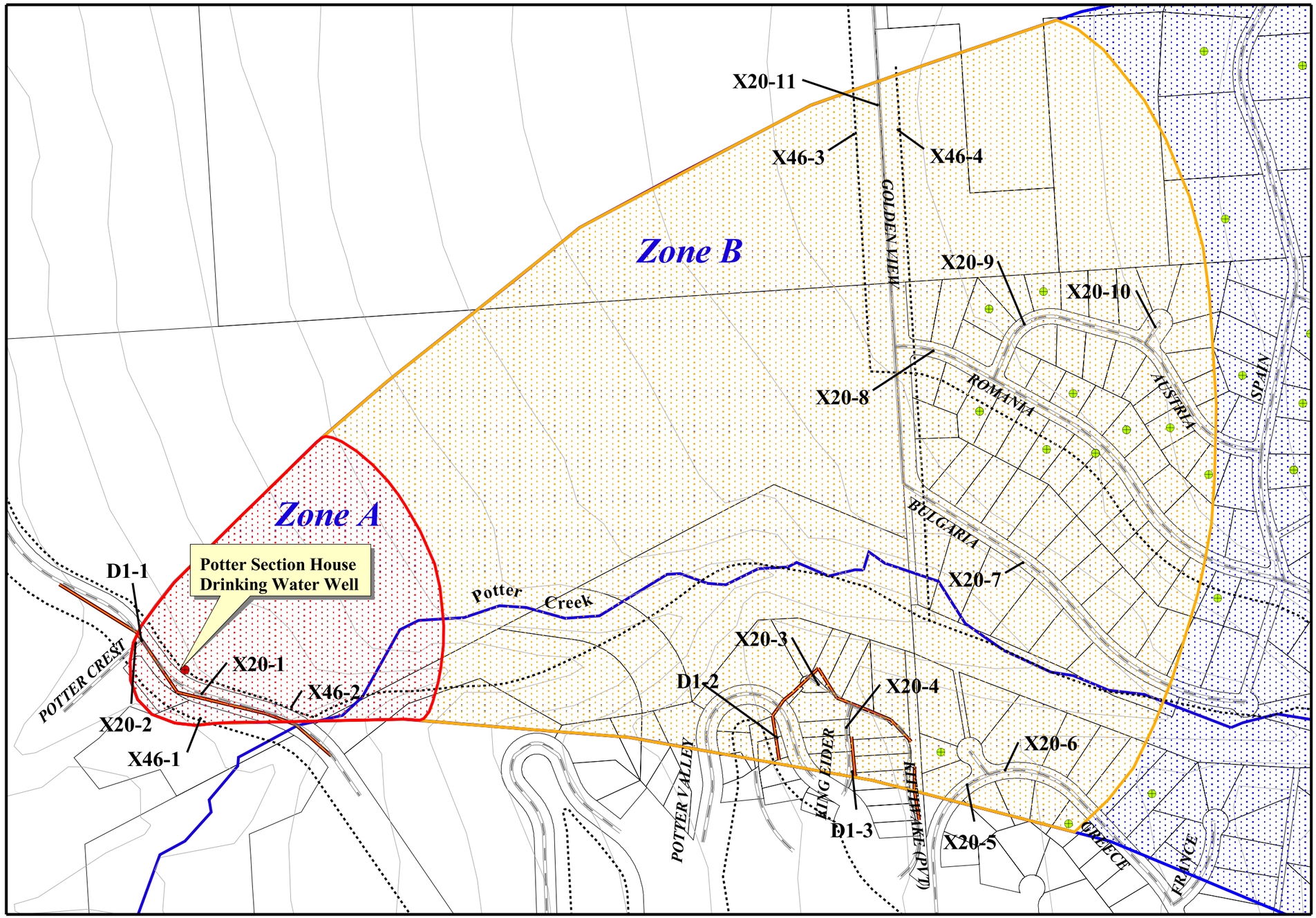
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-46 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-47 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-48 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-49 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-5 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-50 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-51 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-52 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-53 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-54 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-55 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-56 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-57 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-59 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-6 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-61 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-62 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-64 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-65 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-66 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-67 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-68 | B | Very Low | | Along Romania Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-7 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-72 | B | Very Low | | Along Austria Drive | 4 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Septic systems (serves one or more single-family homes) | R2 | R2-73 | B | Very Low | | Along Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-74 | B | Very Low | | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-75 | B | Very Low | | North of Austria Drive | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-8 | B | Very Low | | Along Potter Valley Road | 4 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-9 | B | Very Low | | Along Kittiwake Circle | 4 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-10 | B | Low | | Austria Court | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-11 | B | Low | | Golden View Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-5 | B | Low | | Greece Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-6 | B | Low | | Greece Circle | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-7 | B | Low | | Bulgaria Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-8 | B | Low | | Romania Drive | 2 | |
| Highways and roads, paved (cement or asphalt) | X20 | X20-9 | B | Low | | Austria Drive | 2 | |
| Soap and detergent manufacturing | I42 | I42-1 | C | Medium | | Along Italy Circle | 5 | |
| Septic systems (serves one or more single-family homes) | R2 | R2-76-227 | C | Very Low | | All septic systems within Zone C | 5 | |

# APPENDIX C

## Potter Section House's
## Drinking Water Protection Area
## and Potential & Existing Contaminant Sources

# Potter Section House Drinking Water Protection Area and Potential & Existing Sources of Contamination




- Potter Section House Well
- Private & Public Wells
- USGW Wells

Zone A Protection Area
- Several Months Travel Time

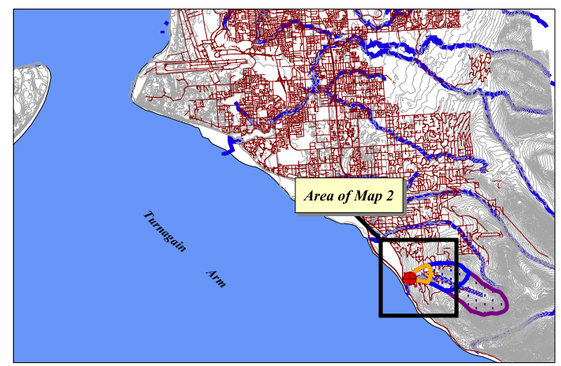
Zone B Protection Area
- Less than 2 Years Travel Time

Zone C Protection Area
- Less Than 5 Years Travel Time

Zone D Protection Area
- Less Than 10 Years Travel Time

- Roads (X20)
- Sewers (D1)
- Trails (X46)
- Elevation Contours
- Anchorage Streams
- Tunagain Arm of Cook Inlet
- MOA Land Parcels

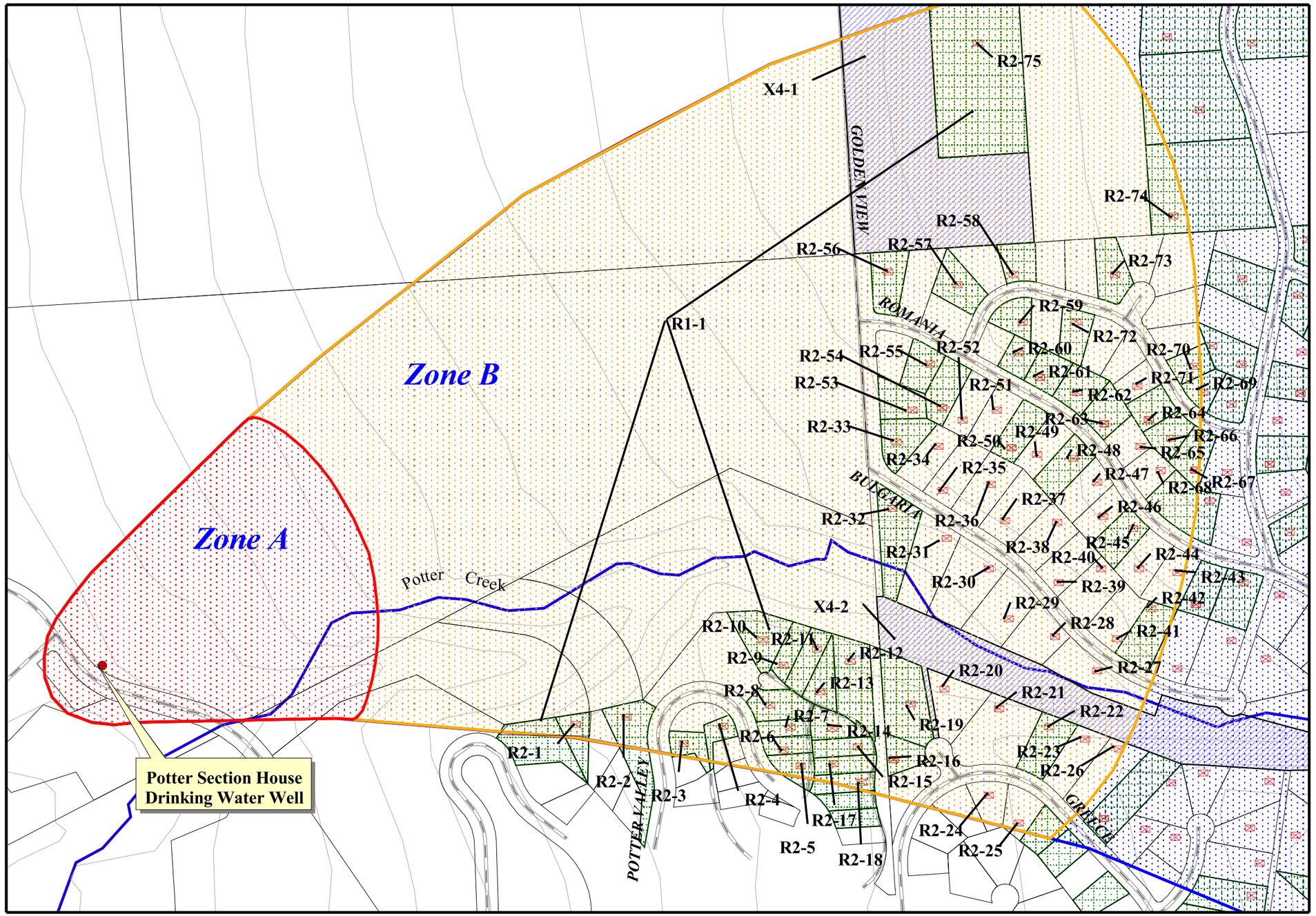
N
W E
S




PWSID 211342.001

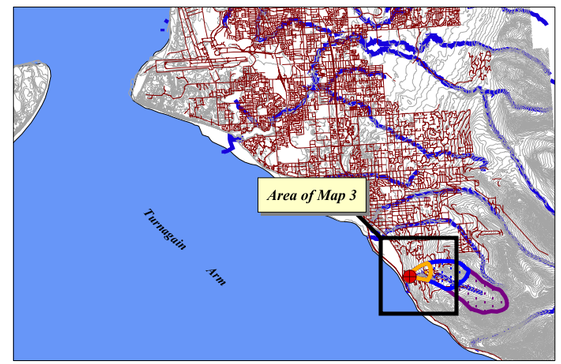
**Map 2**

# Potter Section House Drinking Water Protection Area and Potential & Existing Sources of Contamination




- Potter Section House Well
- Zone A Protection Area
  - Several Months Travel Time
- Zone B Protection Area
  - Less than 2 Years Travel Time
- Zone C Protection Area
  - Less Than 5 Years Travel Time
- Zone D Protection Area
  - Less Than 10 Years Travel Time
- MOA Land Parcels
- Lawns and gardens (R1)
- Municipal or city parks (X4)
- Septic Systems (R2)
- Roads (X20)
- Elevation Contours
- Anchorage Streams

N W E S

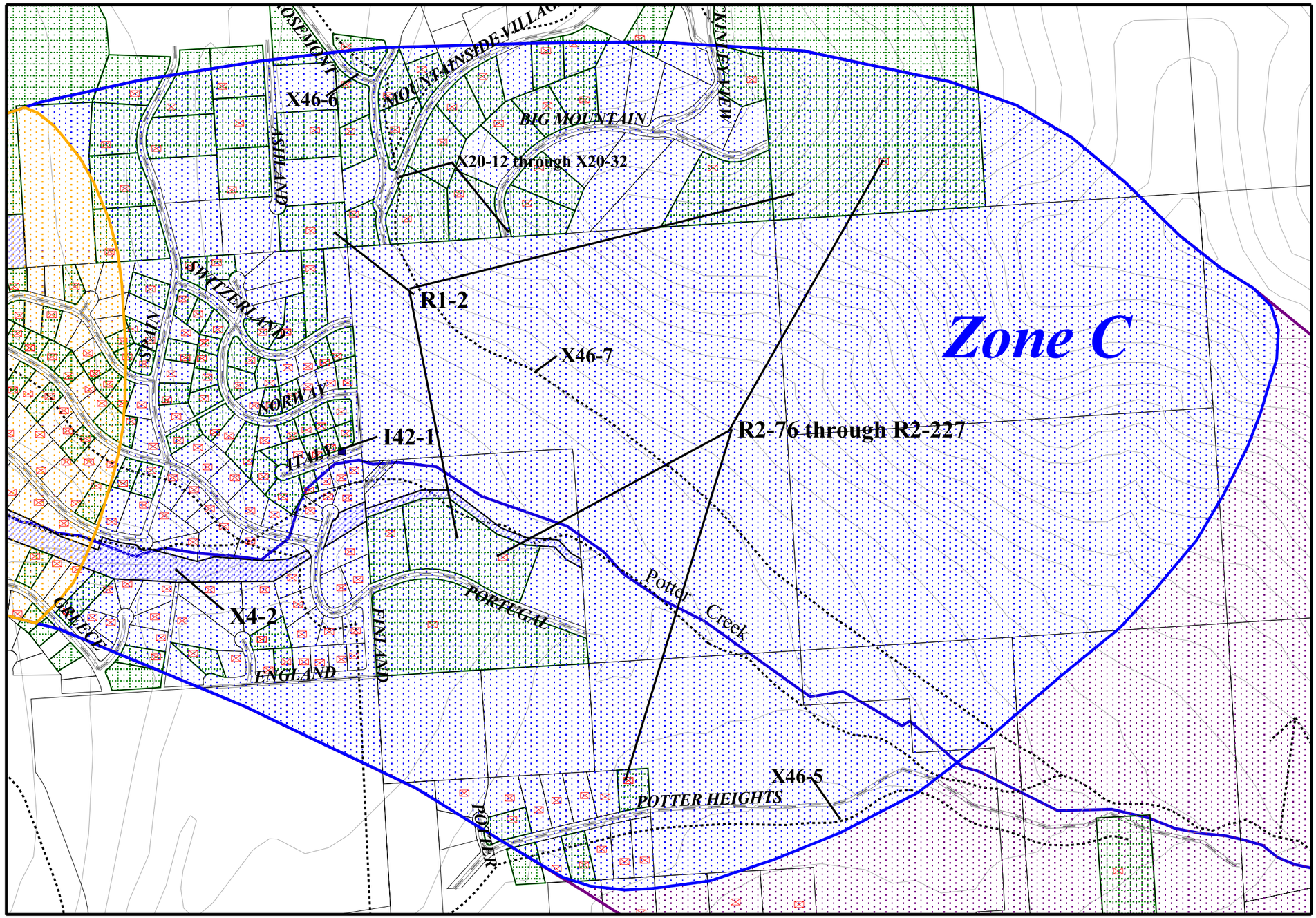



900 0 900 1800 Feet

PWSID 211342.001

***Map 3***

# Potter Section House Drinking Water Protection Area and Potential & Existing Sources of Contamination




- Potter Section House Well

**Zone A Protection Area**
- Several Months Travel Time

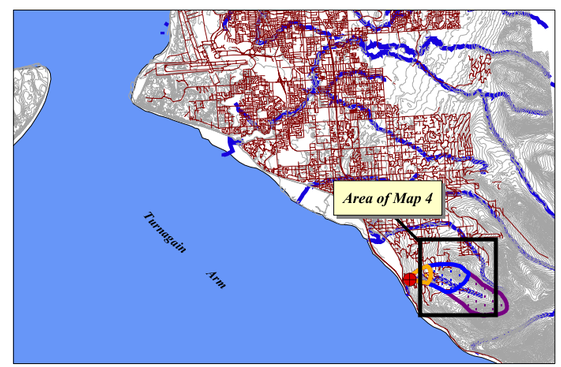
**Zone B Protection Area**
- Less than 2 Years Travel Time

**Zone C Protection Area**
- Less Than 5 Years Travel Time

**Zone D Protection Area**
- Less Than 10 Years Travel Time
- MOA Land Parcels
- Lawns and gardens (R1)
- Municipal or city parks (X4)

**Potential & Existing Contaminant Sources**
- Soap and detergent manufacturing (I42)
- Septic Systems (R2)
- Roads (X20)
- Trails (X46)
- Elevation Contours
- Anchorage Streams

N
W E
S

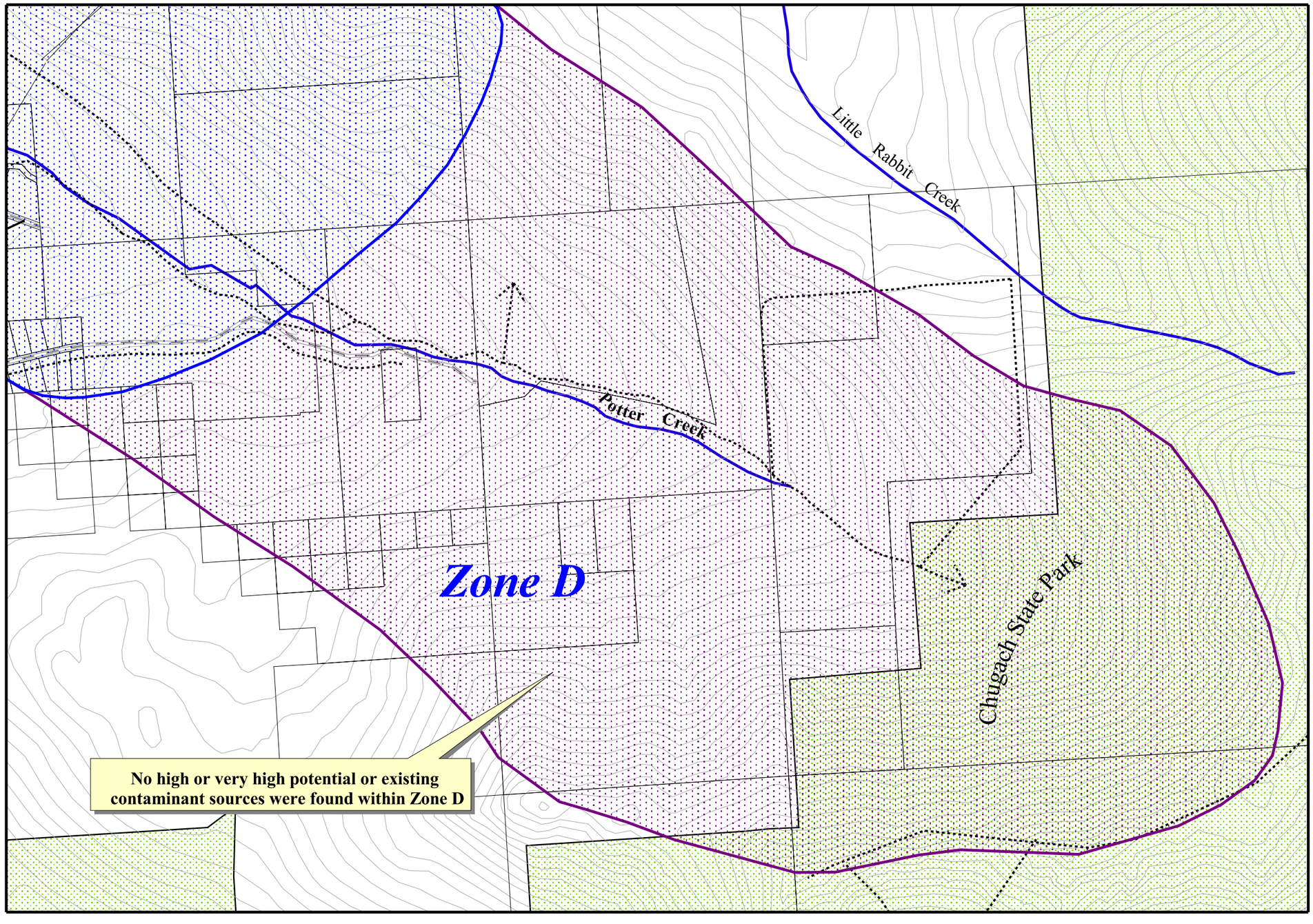



2000 0 2000 Feet

PWSID 211342.001

# Map 4

# Potter Section House Drinking Water Protection Area and Potential & Existing Sources of Contamination




- Potter Section House Well

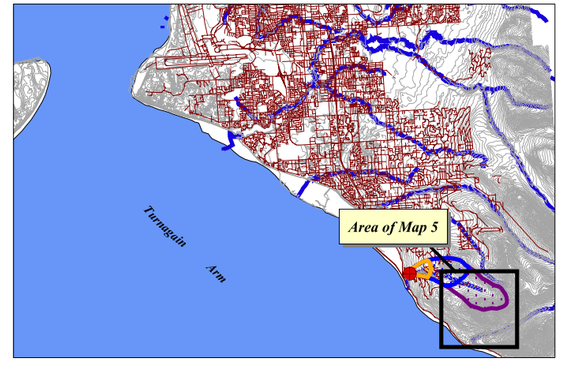
**Zone A Protection Area**
- Several Months Travel Time

**Zone B Protection Area**
- Less than 2 Years Travel Time

**Zone C Protection Area**
- Less Than 5 Years Travel Time

**Zone D Protection Area**
- Less Than 10 Years Travel Time
- MOA Land Parcels
- Roads (X20)
- Trails (X46)
- Elevation Contours
- Anchorage Streams
- Chugach State Park

N
W E
S




2000 0 2000 4000 Feet

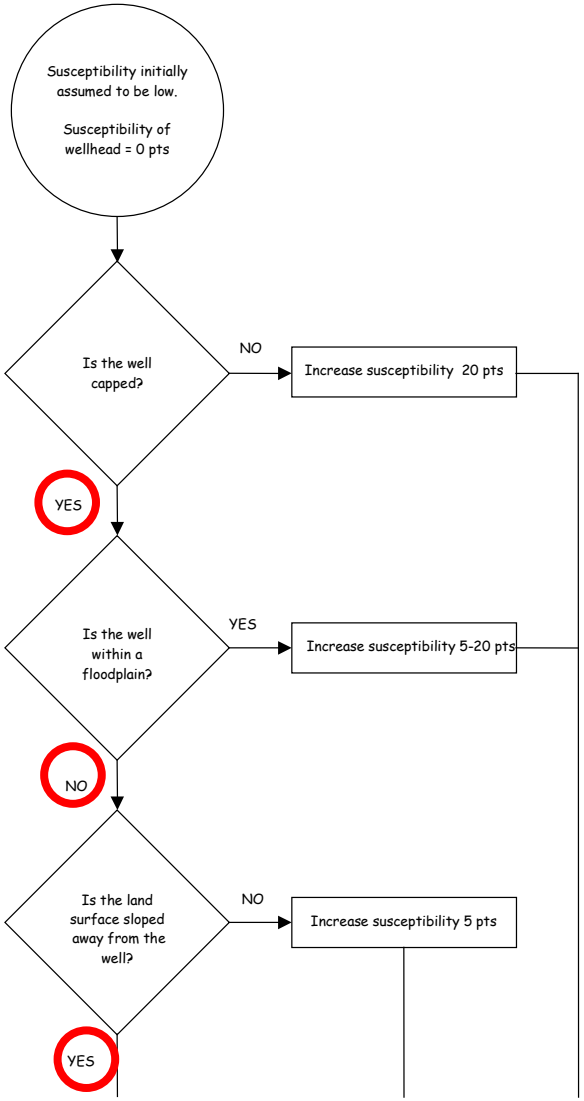
PWSID 211342.001

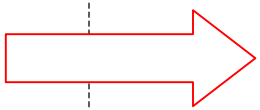
***Map 5***

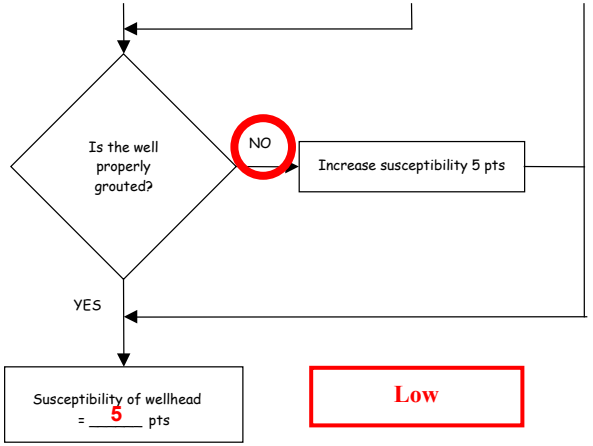
# APPENDIX D

# Vulnerability Analysis for Potter Section House's Public Drinking Water Source

***Chart 1. Susceptibility of the wellhead – Potter Section House***



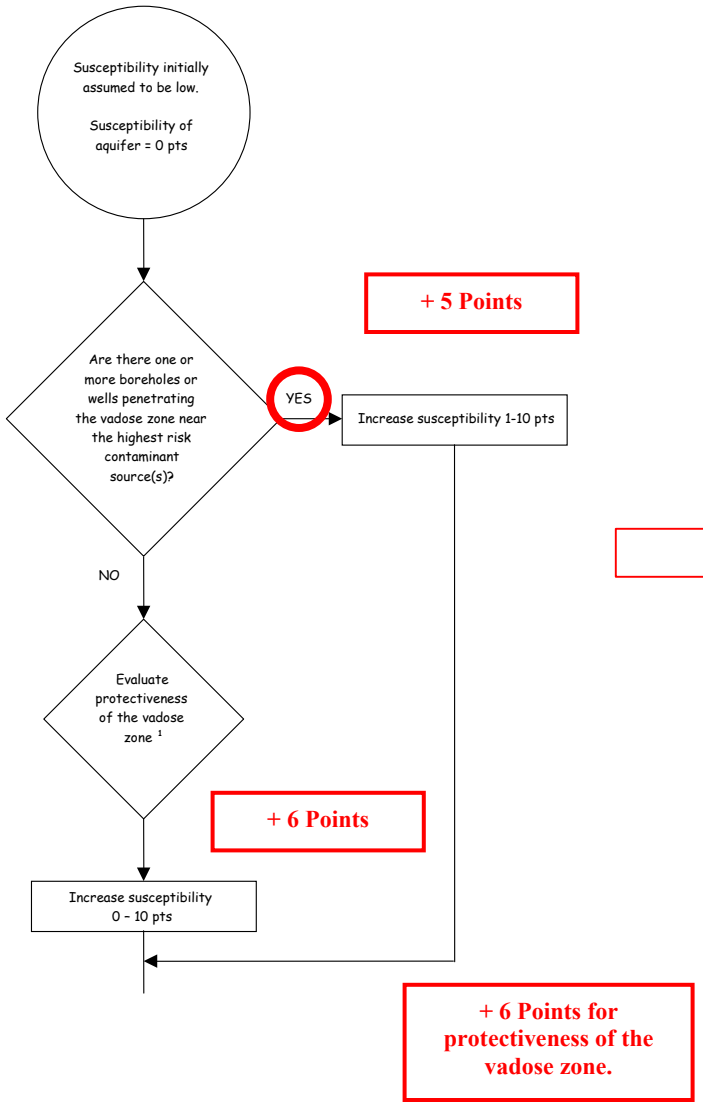



**Wellhead Susceptibility Ratings**

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

**It was not indicated on the well log, dated 03/05/86, whether the well log was grouted at the time of drilling. Grouting assumed to be absent.**

***Chart 2. Susceptibility of the aquifer – Potter Section House***



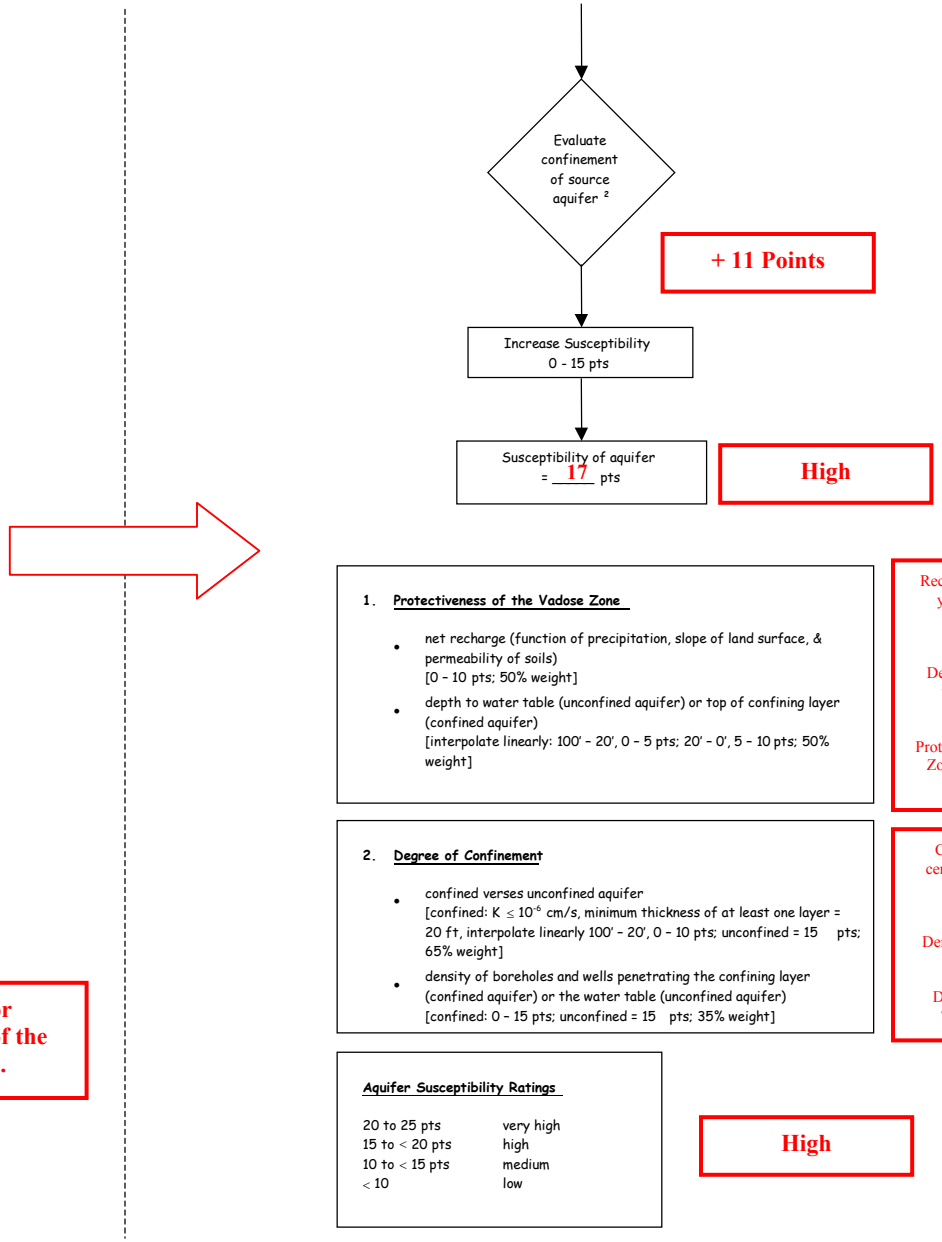



***Chart 3. Contaminant risks for Potter Section House – Bacteria and Viruses***

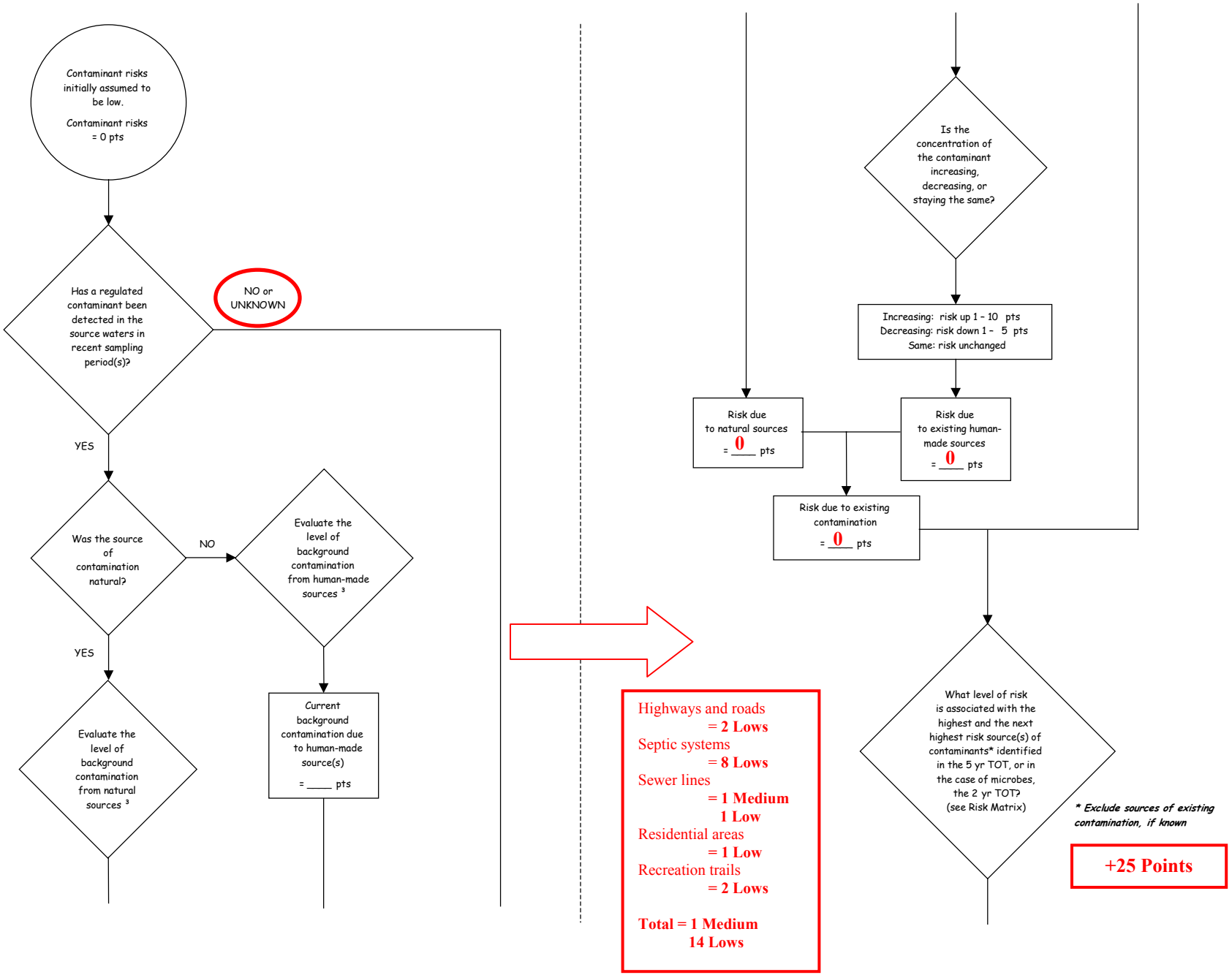


*Chart 3. Contaminant risks for Potter Section House – Bacteria and Viruses (Continued)*

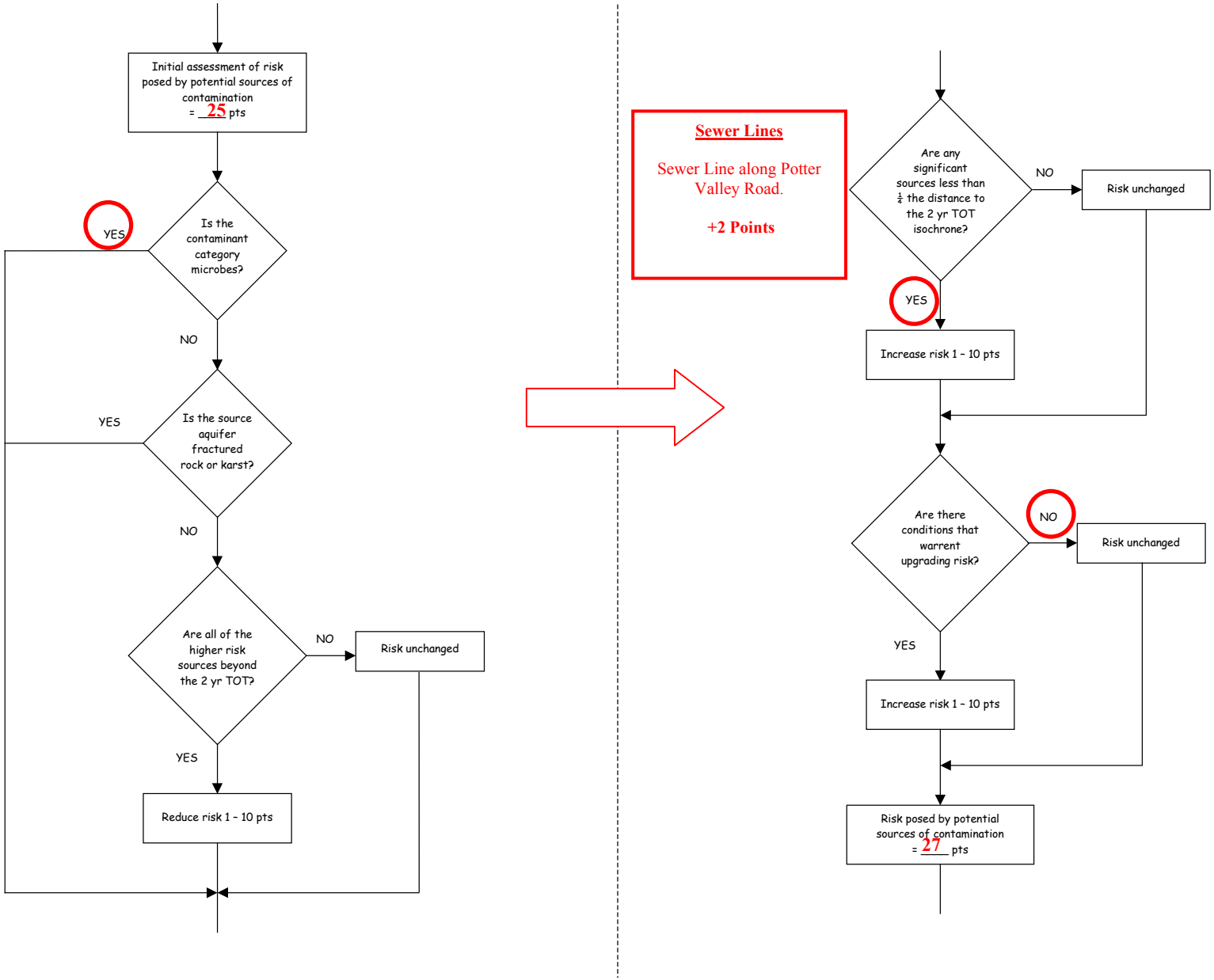
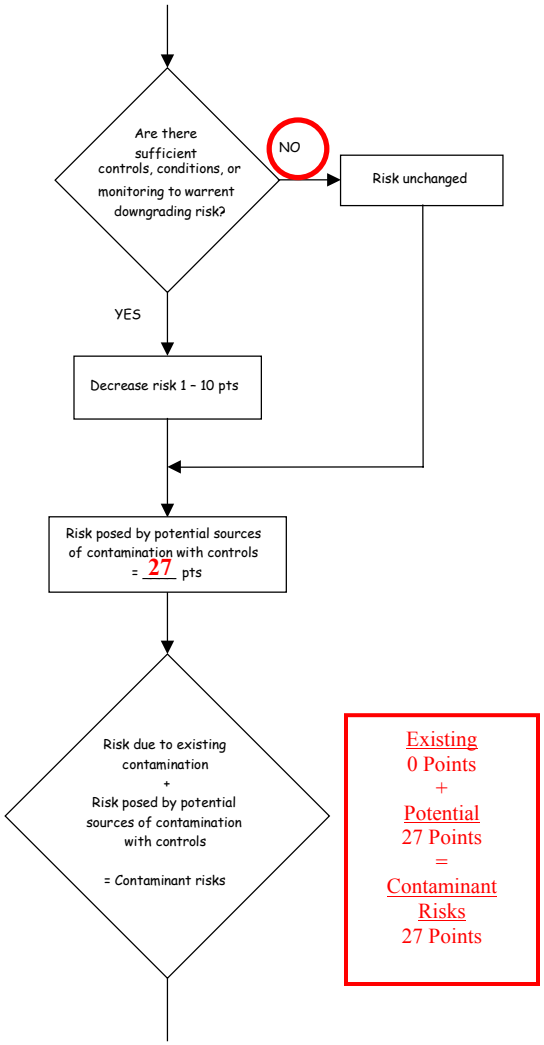
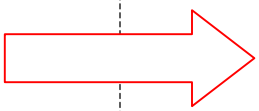
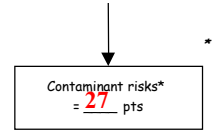


*Chart 3. Contaminant risks for Potter Section House – Bacteria and Viruses (Continued)*




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






** Truncate risk at 50 pts*

**Medium**

**3. Level of Background Contamination**

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

**Contaminant Risk Ratings**

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

**Table 1. Risk Matrix for Contaminant Sources for Potter Section House – Bacteria & Viruses**

**Level of Risk Associated with the Highest Risk Sources**

**Next Highest Risk Sources(s)**

| Highways and roads, septic systems, sewer lines, residential areas, recreation trails | **LOW 10 pts** | **MEDIUM 20 pts** | **HIGH 30 pts** | **VERY HIGH 40 pts** |
|---|---|---|---|---|
| **Low** | > 10 sources + 10 pts | > 10 sources + 5 pts | > 20 sources + 5 pts | --- |
| **Medium** | --- | > 2 sources + 5 pts | > 5 sources + 5 pts | > 10 sources + 5 pts |
| **High** | --- | --- | 1 source + 10 pts | > 2 sources + 10 pts |
| **Very High** | --- | --- | --- | 1 source + 10 pts |

*Chart 4. Vulnerability analysis for Potter Section House – Bacteria & Viruses*

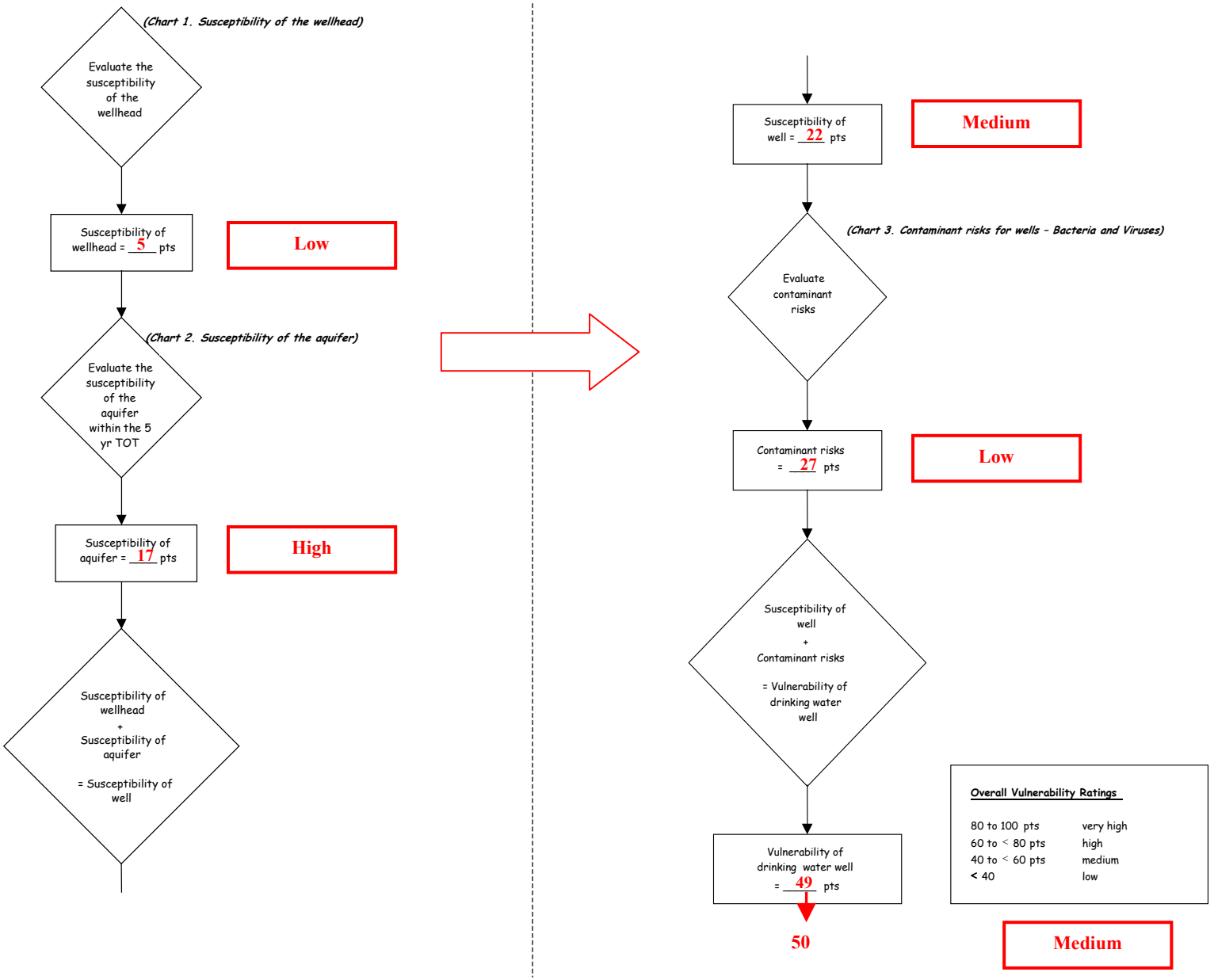


***Chart 5. Contaminant risks for Potter Section House – Nitrates and Nitrites***

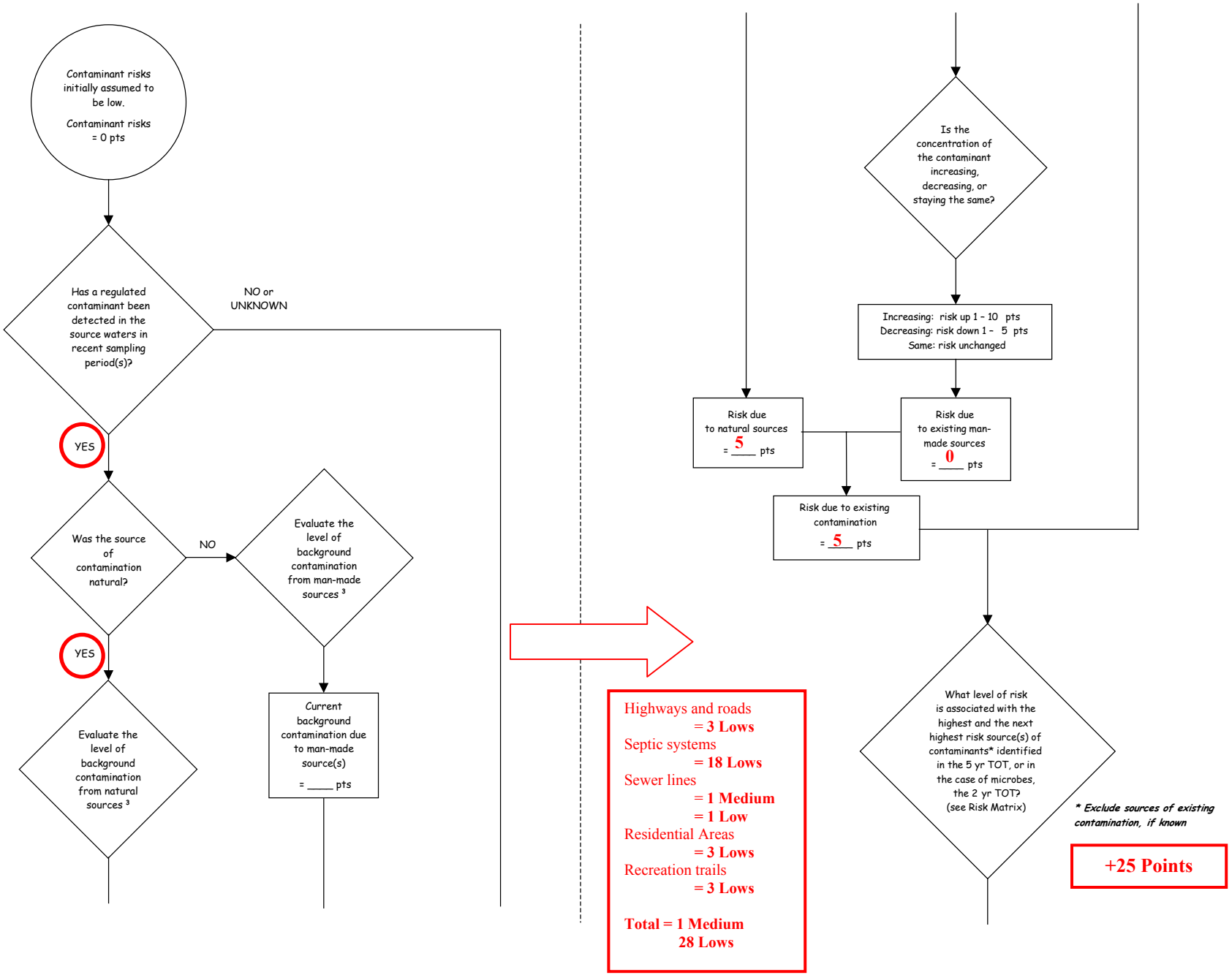


*Chart 5. Contaminant risks for Potter Section House – Nitrates and Nitrites (Continued)*

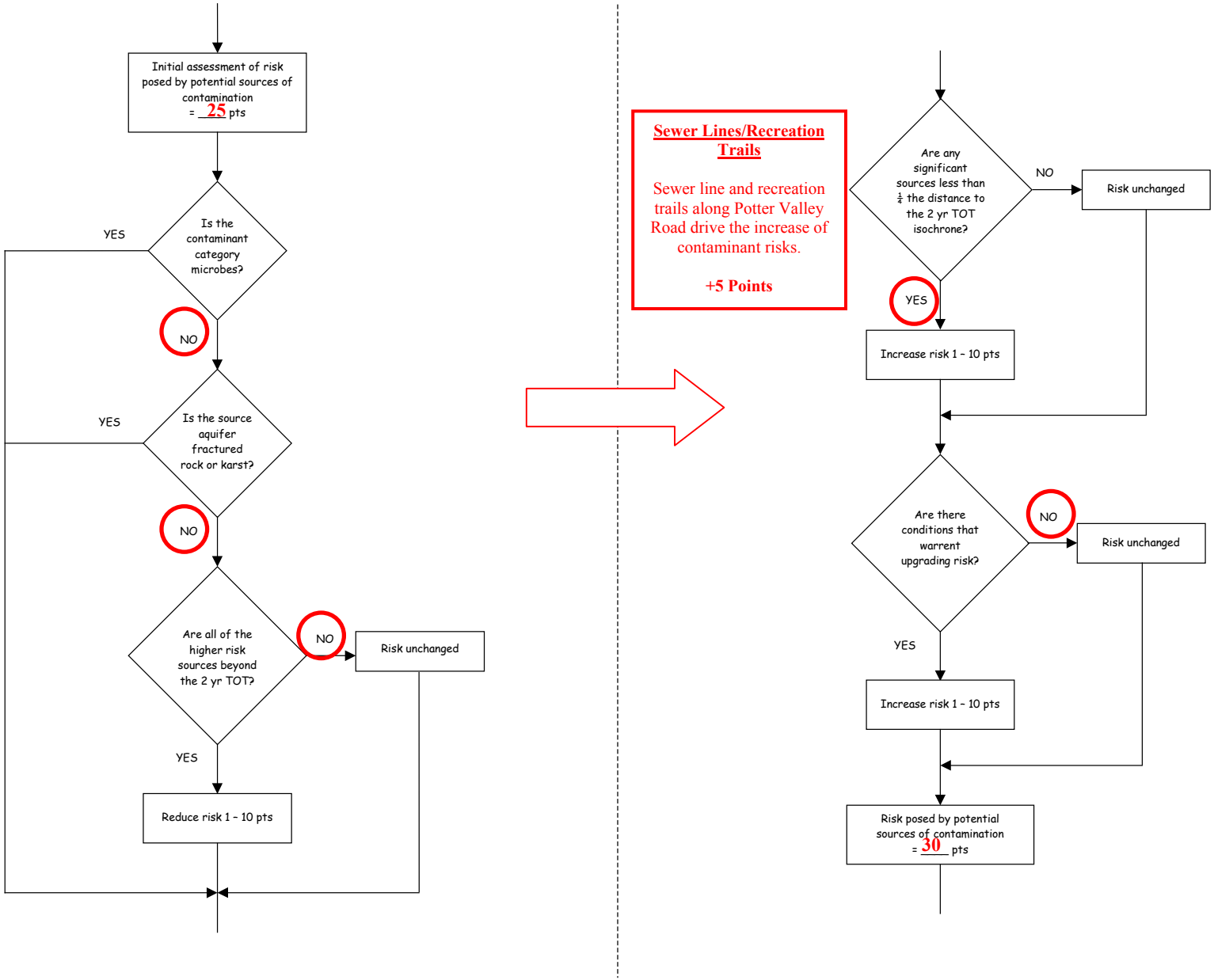
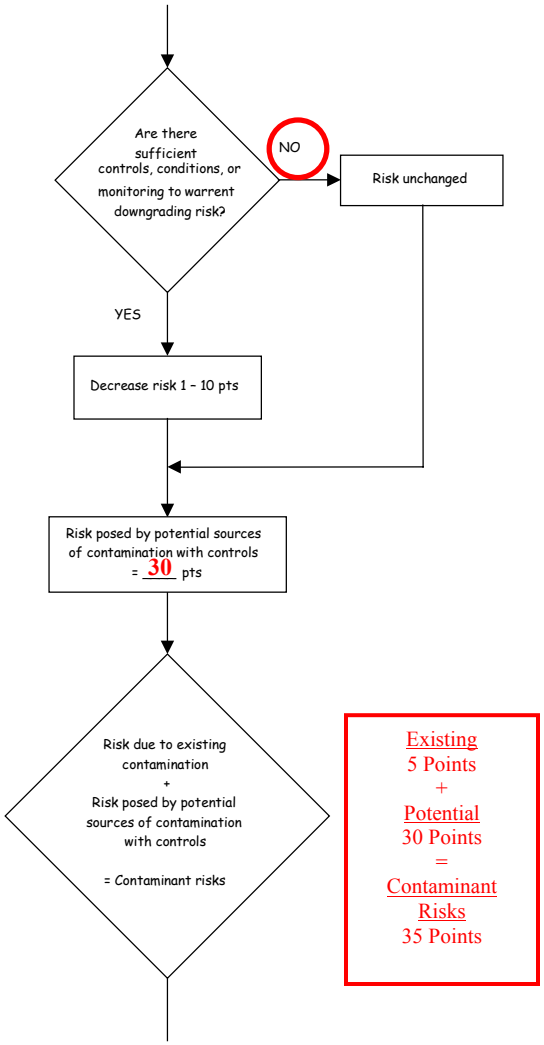


*Chart 5. Contaminant risks for Potter Section House – Nitrates and Nitrites (Continued)*




Existing
5 Points
+
Potential
30 Points
=
Contaminant
Risks
35 Points

** Truncate risk at 50 pts*

Contaminant risks*
= 35 pts

**High**

**3. Level of Background Contamination**

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

**Contaminant Risk Ratings**

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

**Nitrate**

0.13 mg/L (05/01/00)
0.14 mg/L (05/19/99)
0.24 mg/L (08/05/98)
0.13 mg/L (05/06/97)
0.08 mg/L (05/14/96)
0.16 mg/L (05/18/94)
0.01 mg/L (01/13/92)

Maximum Contaminant Level (MCL) = 10mg/L

0.13/10
= 0.013 or 1.3% of MCL

**+5 Points**

**Table 2. Risk Matrix for Contaminant Sources for Potter Section House – Nitrates and Nitrites**

**Level of Risk Associated with the Highest Risk Sources**

**Next Highest Risk Sources(s)**

| Highways and roads, septic systems, sewer lines, residentail areas, recreation trails | **LOW 10 pts** | **MEDIUM 20 pts** | **HIGH 30 pts** | **VERY HIGH 40 pts** |
|---|---|---|---|---|
| **Low** | > 10 sources + 10 pts | > 10 sources + 5 pts | > 20 sources + 5 pts | --- |
| **Medium** | --- | > 2 sources + 5 pts | > 5 sources + 5 pts | > 10 sources + 5 pts |
| **High** | --- | --- | 1 source + 10 pts | > 2 sources + 10 pts |
| **Very High** | --- | --- | --- | 1 source + 10 pts |

*Chart 6. Vulnerability analysis for Potter Section House – Nitrates and Nitrites*

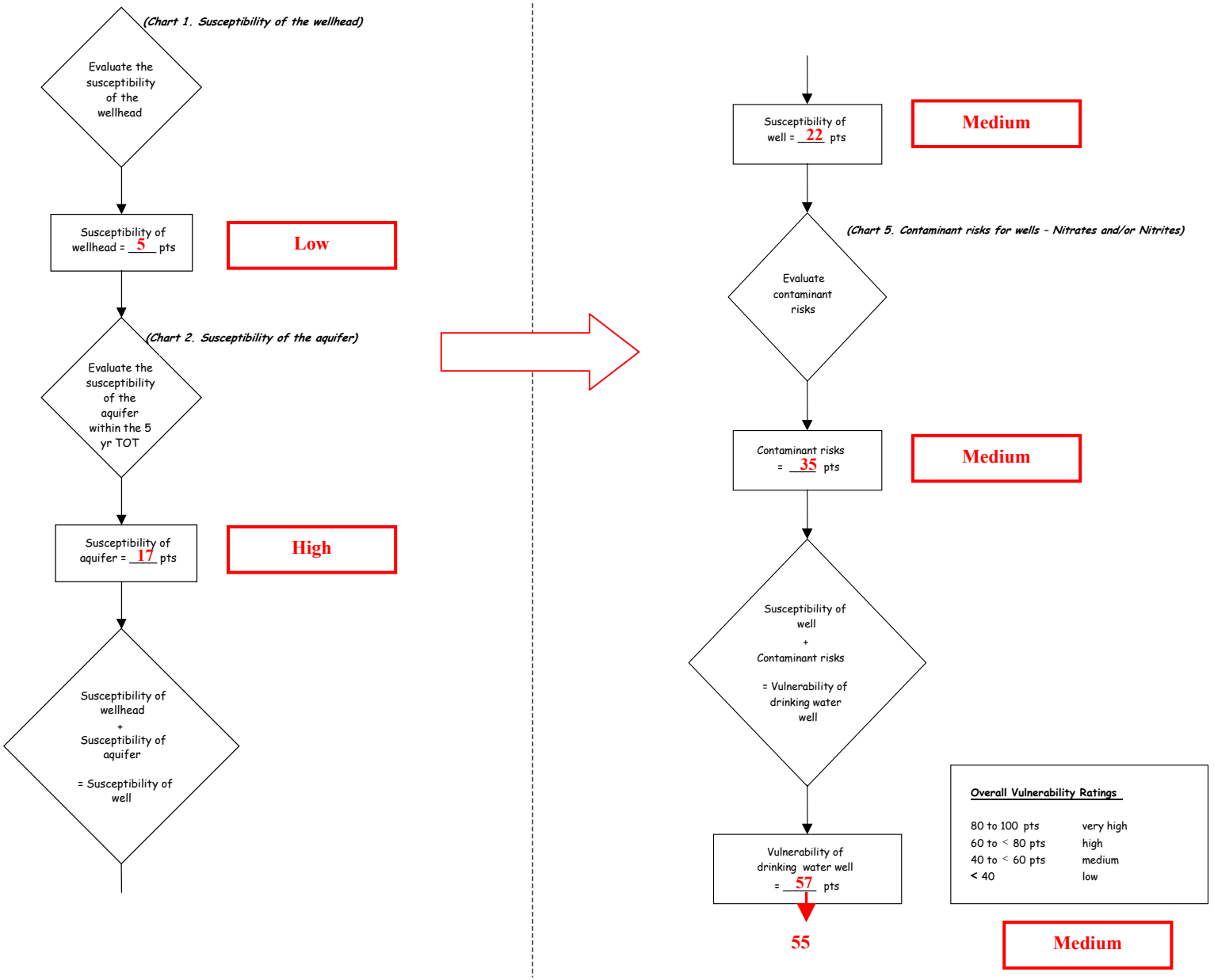


***Chart 7. Contaminant risks for Potter Section House – Volatile Organic Chemicals***

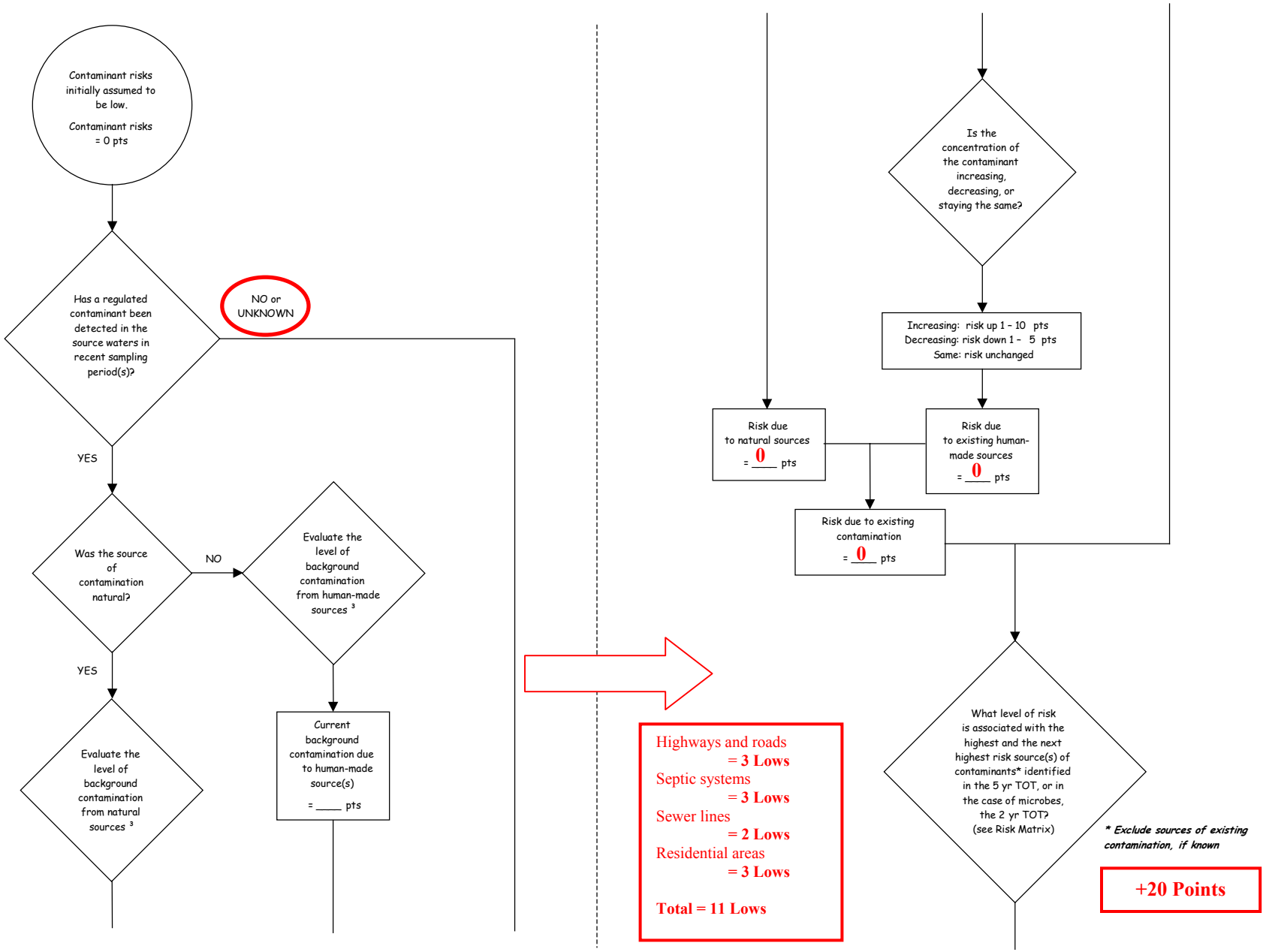


*Chart 7. Contaminant risks for Potter Section House – Volatile Organic Chemicals (Continued)*

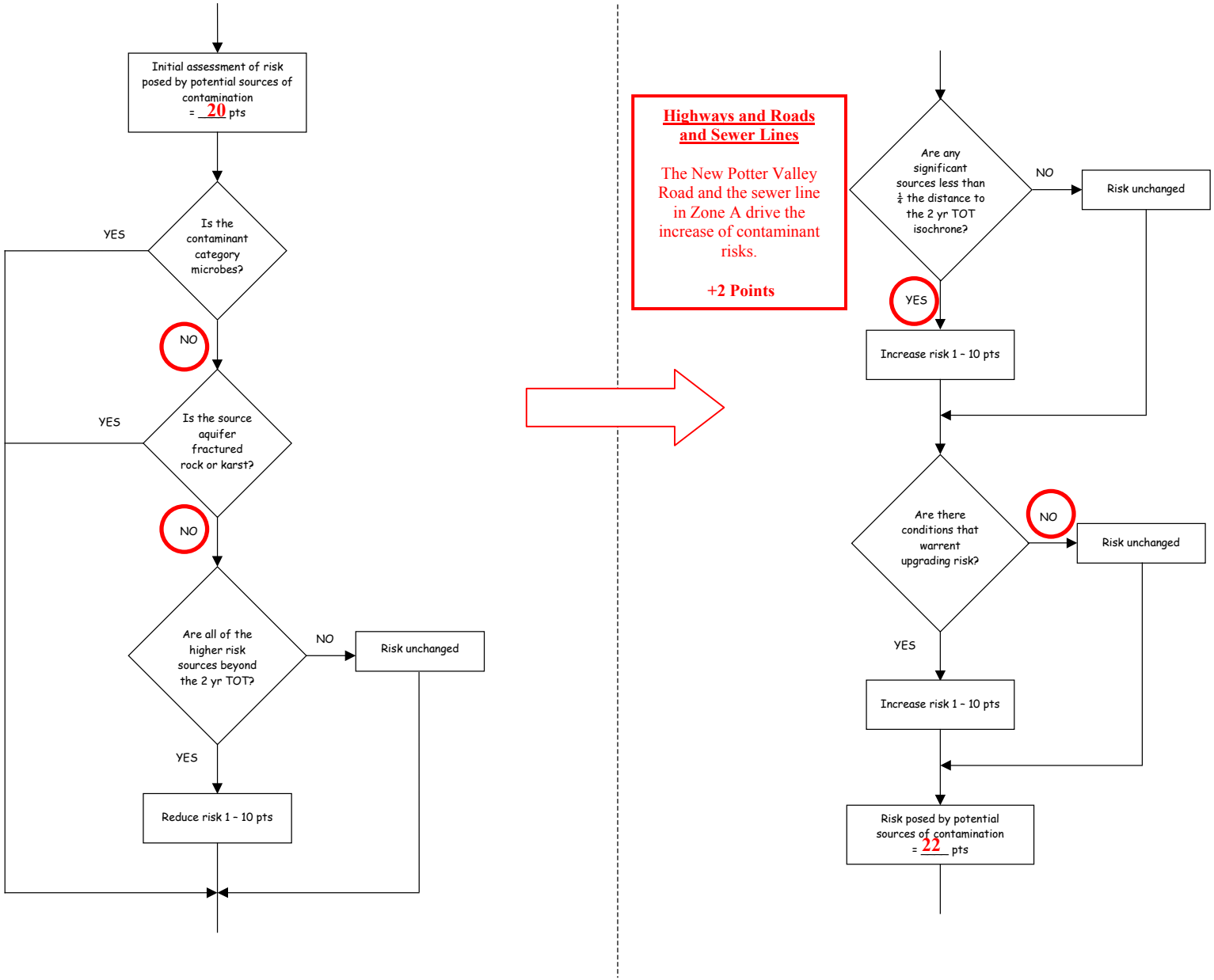
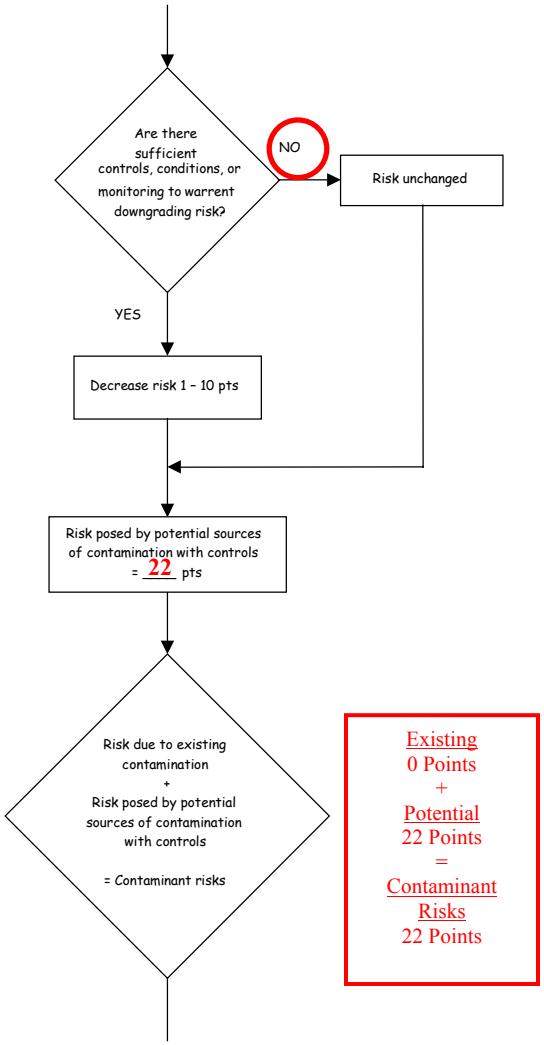
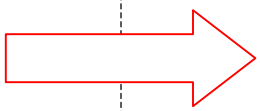


*Chart 7. Contaminant risks for Potter Section House – Volatile Organic Chemicals (Continued)*




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



** Truncate risk at 50 pts*

Contaminant risks*
= 22 pts

**Medium**

**3. Level of Background Contamination**

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

**Contaminant Risk Ratings**

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

**Table 3. Risk Matrix for Contaminant Sources for Potter Section House – Volatile Organic Chemicals**

**Level of Risk Associated with the Highest Risk Sources**

| **Next Highest Risk Sources(s)** | Highways and roads, septic systems, sewer lines, residential areas | **LOW 10 pts** | **MEDIUM 20 pts** | **HIGH 30 pts** | **VERY HIGH 40 pts** |
|---|---|---|---|---|---|
| **Low** | | >10 sources + 10 pts | > 10 sources + 5 pts | > 20 sources + 5 pts | --- |
| **Medium** | | --- | > 2 sources + 5 pts | > 5 sources + 5 pts | > 10 sources + 5 pts |
| **High** | | --- | --- | 1 source + 10 pts | > 2 sources + 10 pts |
| **Very High** | | --- | --- | --- | 1 source + 10 pts |

*Chart 8. Vulnerability analysis for Potter Section House – Volatile Organic Chemicals*