



Illinois Environmental Protection Agency



Source Water Assessment Program

FACT SHEET

FREEPORT

STEPHENSON COUNTY

Prepared in cooperation with the U.S. Geological Survey.

Information and data used in the preparation of this Fact Sheet are provided by the Illinois EPA and are subject to revision.

IMPORTANCE OF SOURCE WATER:

The City of Freeport (Facility Number 1770200) utilizes seven active community water supply wells. Wells #2, #3, #4, #5, #6, #7, and #8 (Illinois EPA #11858, 11859, 11860, 11861, 11862, 11863, and 01298, respectively) supply an average of 3,500,000 gallons per day (gpd) to 11,283 services or a population of 27,500. In addition, Freeport provides water to Woodridge Estates 1 West, Woodridge Estates 2, Woodridge Estates 1 East, and Park Crest Water Company.

WATER SUPPLIES THAT OBTAIN SOURCE WATER FROM THIS FACILITY:

Facility Number	Facility Name	Status	Population
1770010	WOODRIDGE ESTATES 1 WEST	X	316
1770020	WOODRIDGE ESTATES 2	A	216
1770030	WOODRIDGE ESTATES 1 EAST	X	316

SOURCE OF WATER SUPPLY:

Wells #2, #3, #4, #5, #6, and #7 are located at the north end of Freeport and well #8 is located at the south end of Freeport. Wells #2, #3, #4, #5, #6, #7, and #8 are 415, 502, 425, 137, 472, 135, and 712 feet in depth, respectively. Wells #2, #4, and #5 each produce 1,200 gallons per minute (gpm), and wells #3, #5, and #7 produce 900, 3,000, and 2,800 gpm, respectively. The production rate of well #8 is unknown. All seven wells are operated for a combined maximum output of roughly 5,300,000 gpd. Wells #1 west well and #2 east well (Illinois EPA 11887 and 11888, respectively) are no longer used as sources of water and have been reported as properly abandoned. Wells #2, #3, #4, #6, and #8 obtain their source water from a bedrock aquifer, and wells #5 and #7 obtain their source water from a shallow, permeable sand and gravel aquifer. Permeability is a measure of the capability of a soil or sediment to transmit fluids. The Illinois EPA considers wells #2, #3, #4, #5, #6, and #7 to be geologically sensitive. Well #8 is not considered to be geologically sensitive.

WELL DATA FOR THIS FACILITY:

Well ID	Well Description	Status	Depth (Feet)	Min Setback (Feet)	Aquifer Description
11858	WELL 2	A	415	400	Cambrian/Ordovician
11859	WELL 3	A	502	400	Cambrian/Ordovician
11860	WELL 4	A	425	400	Cambrian/Ordovician
11861	WELL 5	A	137	400	Sand & Gravel
11862	WELL 6	A	472	400	Cambrian/Ordovician
11863	WELL 7	A	135	400	Sand & Gravel

Well ID	Well Description	Status	Depth (Feet)	Min Setback (Feet)	Aquifer Description
11887	WELL NO 1 WEST WELL	B	407	400	Cambrian/Ordovician
11888	WELL NO 2 EAST WELL	B	402	400	Cambrian/Ordovician
01298	WELL 8 1500 GPM	A	712	200	Cambrian/Ordovician

SOURCE WATER QUALITY:

Freeport's wells #2, #3, #4, #5, #6, and #7 have been sampled periodically since December 6, 1982 for inorganic chemicals (IOC), volatile organic compounds (VOC), and synthetic organic compounds (SOC) as part of a Statewide Groundwater Monitoring Program. However, well #8 has not been sampled for IOC, VOC, and SOC. The SOC analyses did not detect quantifiable levels of any organic compounds. IOC analyses indicate that concentrations of these chemicals are consistent with other bedrock and sand and gravel aquifers of similar character in this part of Illinois. It is important to note that the IOC results were below the groundwater quality standards established under 35 Illinois Administrative Code Part 620.410, with the exception of manganese concentrations in wells #5 and #7. Manganese concentrations in these two wells range from 310 to 590 parts per billion (ppb). The groundwater quality standard for manganese, as established under Part 620.410, is 150 ppb. However, the Illinois EPA considers the elevated levels of manganese to be a result of natural mineralization of the aquifer. Hence, the levels of manganese are not considered a violation due to the stipulation in Part 620.410 that no violation occurs as a result of a natural occurrence of an IOC.

The VOC analyses detected quantifiable levels of several organic compounds in Freeport's community water supply wells #2, #3, #4, #5, #6, and #7. In well #2, the concentrations of each of the following compounds ranged from less than the detection limit of 0.5 ppb to: 1 ppb for benzene, 0.6 ppb for trichloroethylene (TCE), 40 ppb for cis-1,2-dichloroethylene, and 21 ppb for vinyl chloride. Well #3 has had concentrations of cis-1,2-dichloroethylene, benzene, vinyl chloride, 1,1-dichloroethane, and trans-1,2-dichloroethylene as high as 5.7 ppb, 3.1 ppb, 2.5 ppb, 2 ppb, and 54 ppb, respectively. In well #4, the concentrations of each of the following compounds ranged from less than the detection limit of 0.5 ppb to: 3.4 ppb for benzene, 13 ppb for vinyl chloride, 2.3 ppb for TCE, 1 ppb for 1,1-dichloroethylene, 41.8 ppb for cis-1,2-dichloroethylene, 0.6 ppb for 1,1,1-trichloroethane, 40 ppb for trans-1,2-dichloroethylene, and 9.6 ppb for 1,1 dichloroethylene. Well #5 has had concentrations of trans-1,2-dichloroethylene and 1,1-dichloroethane no higher than 4 ppb, and 1 ppb, respectively. Concentration levels of trans-1,2-dichloroethylene and 1,1-dichloroethylene in well #6 have been no higher than 2.8 ppb and 3 ppb, respectively. In well #7, the concentrations of each of the following compounds ranged from less than the detection limit of 0.5 ppb to: 3 ppb for cis-1,2-dichloroethylene, 3 ppb for trans-1,2-dichloroethylene, 2 ppb for TCE, and 3.5 ppb for 1,1-dichloroethylene. The groundwater quality standards for the above mentioned constituents, as established under 35 Illinois Administrative Code Part 620.410, are: benzene - 5 ppb, TCE - 5 ppb, vinyl chloride - 2 ppb, cis-1,2-dichloroethylene - 70 ppb, 1,1,1-trichloroethane - 200 ppb, trans-1,2-dichloroethylene - 100 ppb, and 1,1-dichloroethylene - 7 ppb. However, there is no groundwater quality standard for 1,1-dichloroethane at this time.

Recent monitoring data provided by the City of Freeport indicates that the VOC concentrations have generally declined in their community water supply wells. In well #2, no VOC's were detected over the past five years. Well #3 has had concentrations of vinyl chloride, methylene chloride, trans-1,2-dichloroethylene, 1,1-dichloroethane, cis-1,2-dichloroethylene, benzene, trichloroethylene and 1,2-dichloroethane as high as 4.2 ppb, 1.2 ppb, 4.7 ppb, 0.7 ppb, 5.7 ppb, 4.8 ppb, 1.3 ppb and 0.9 ppb, respectively. In well #4, the concentrations of each of the following ranged from less than the detection limit of 0.50 ppb to: 1.6 ppb for methyl chloride, 2.3 ppb for vinyl chloride, 1.2 ppb for methylene chloride, 5.1 ppb for cis-1,2-dichloroethylene, 4.1 ppb for benzene and 0.69 ppb for trichloroethylene. In well #5, concentrations of 1.9 ppb vinyl chloride, 1.6 ppb benzene and 0.59 ppb trichloroethylene were detected in one sample over the past five years. In well #6 and well #7, concentrations of cis-1,2-dichloroethylene have been no higher than 0.9 ppb and 1.8 ppb, respectively.

FINISHED WATER QUALITY:

As referenced in the Source Water Quality Section of this report, Freeport has mineralized groundwater. Sampling performed after treatment indicates that levels of manganese in the source water have been reduced to below the drinking water standards. No VOC's other than low concentrations (less than or equal to 1.1 ppb) of cis-1,2-dichloroethylene have been detected in the finished water. EPA has established a maximum contamination level of 70 ppb for cis-1,2-dichloroethylene in public water supplies. Further information on finished water quality data tables of monitored parameters, contaminants detected, health advisory information, drinking water standards and

maximum contaminant levels are available at <http://www.epa.gov/ogwdw/>. Similar information is also available in the Consumer Confidence Report supplied by the City of Freeport to their customers.

POTENTIAL SOURCES OF CONTAMINATION:

The sites labeled on the Wellhead Protection Planning Map and described in the following tables are considered "potential" sources of contamination. (Maps and tables are not available in the Visually Impaired Accessible version. However, the information presented in the maps and tables is summarized within the following text sections of this fact sheet.) These sites are predominantly identified through the Illinois EPA's Well Site Survey program based on the nature of their activity, the availability of data in electronic databases, and their geographic proximity to the source water protection area. In addition, the Illinois EPA made use of the information from its leaking underground storage tank database (<http://epadata.epa.state.il.us/land/ust/search.asp>) and site remediation program database (<http://epadata.epa.state.il.us/land/srp/search.asp>) to further assess potential sources of contamination to the city's source water. These databases include information from the Illinois EPA Division of Land Pollution Control (LPC) and the Illinois Emergency Management Agency (IEMA). The following is a list of facilities contained within these databases. As a result of multiple possible contamination sources, individual sites may be listed in the table more than once in relation to a well.

IEMA #	Site Name	Street	City	ZIP Code
20001844	Karcher, Bob	200 West Jackson St.	Freeport	61032
20002044	Ill. Dept. of Transportation	890 West Galena Ave.	Freeport	61032
20002305	Bowen Oil Co.	511 Stephenson St.	Freeport	61032
20011801	Strata Geologic Services, Inc.	504 West Stephenson St.	Freeport	61032
20021121	Nicor Gas	216 South Liberty St.	Freeport	61032
881402	Thermos Co.	Rt. 75	Freeport	61032
890215	Clark Oil #393	20 North Galena Ave.	Freeport	61032
891290	Thermos Co.	Rt. 75	Freeport	61032
891664	National By Prod.	751 North Van Buren	Freeport	61032
891841	Kelley Springfield Tire Co.	3769 Rt. 20 East	Freeport	61032
891928	Bennett & Hoefler	407 East Stevenson	Freeport	61032
892487	Downing & Otte Union	76 1017 South West Ave.	Freeport	61032
900152	Burgess Inc.	Exchange St.	Freeport	61032
900412	Kelley Springfield Tire Co.	3769 Rt. 20 East	Freeport	61032
900440	King, Lyle E.	315 North Chicago	Freeport	61032
900987	Mobil Mart	1220 West Galena	Freeport	61032
901899	Tim's Standard	504 West Stephenson	Freeport	61032
902554	Kerr McGee Refining Corp.	601 South Galena	Freeport	61032
902605	Highland Comm. College	2998 West Pearl City Rd.	Freeport	61032
902692	Economy Fire & Casualty Co.	535 West Stephenson	Freeport	61032
902698	Freeport, City of	1001 North Highland Ave.	Freeport	61032
903163	United Parcel Service	103 North Commercial	Freeport	61032
903444	Crestwood Oil Services	1335 West Galena	Freeport	61032
903505	Kelley Springfield Tire Co.	3769 Rt. 20 East	Freeport	61032
903770	Woodridge Estates	2284 West Galena Ave.	Freeport	61032
911154	Freeport Municipal Airport	1255 East Airport Rd.	Freeport	61032
911368	Harris Bank Trust	821 Galena St.	Freeport	61032
911420	Harris Bank Trust	821 West Galena Ave.	Freeport	61032
912352	Stephenson County Sheriff	15 North Galena Ave.	Freeport	61032
912627	Bocker Chevy	801 East South St.	Freeport	61032
920614	Park Hills Golf Course	2892 West Stephenson St.	Freeport	61032
921090	Gillan, Cal & Eileen	321 South Galena St.	Freeport	61032
922071	Anding Realty	1500 South 26th St.	Freeport	61032
922386	Tom's Standard	1348 South Galena Ave.	Freeport	61032
930078	Gould Inc.	300 East Exchange St.	Freeport	61032
932422	Intercity Box & Plastic Co.	730 South Hancock Ave.	Freeport	61032
932994	Freeport Park Dist.	Krape Park West of Gladewood	Freeport	61032

940679 Kurtz, Richard 2290 Illinois Business East Freeport 61032
 950633 Pizza Shack 123 South Chicago Ave.. Freeport 61032
 951319 Rockford Oil Co. 342 North Park Blvd. Freeport 61032
 951562 Freeport School Dist. #145 1325 West Empire St. Freeport 61032
 951696 JH Patterson Co. 324 East Stephenson Freeport 61032
 960740 Johnson Oil Co. 1738 South West Ave. Freeport 61032
 960843 Freeport School Dist. #145 701 East Mosley St. Freeport 61032
 961189 Knoing, Ken 820 Skyline Dr. Freeport 61032
 971321 Anne's Garden Ctr. 704 South West Ave. Freeport 61032
 971329 Servantcor 649 East Jefferson St. Freeport 61032
 980804 Helm Group 2283 U.S. Rt. 20E Freeport 61032
 981768 Northwestern Title Co. 116 West Exchange Freeport 61032
 991066 Freeport Hospital 1045 West Stephenson St. Freeport 60132
 991543 Meyers Farm 5821 South Baileyville Rd. Freeport 61032
 20021662 Dan's Phillip 66 1348 South Galena Ave. Freeport 61032

LPC# Site Name Street City ZIP Code
 1770205004 Anchor Harvey Components 600 West Lamm Road Freeport 61032-
 1770205008 Burgess, Inc. 300 East Exchange Street Freeport 61032-
 1770205095 Northern Illinois Gas 216 South Liberty Street Freeport 61032-5145
 1770205024 Northern Nationalease 1654 Burckhardt Lane Freeport 61032-
 1770205162 Rawleigh Complex 102 South Liberty Avenue Freeport 61032-

SITE DATA FOR THIS FACILITY:

Well ID	Map Code	Site Name	Site Description	Distance (Feet)
11858	23600	BP AMOCO SUPER PANTRY GAS	BELOW GROUND STORAGE (PET	800
11858	23601	CITGO ROAD RANGER GAS STA	BELOW GROUND STORAGE (PET	1300
11858	23608	CN RAILROAD YARD	TRAINYARD	600
11858	23607	CRESTWOOD OIL BULK FUEL ST	ABOVE GROUND STORAGE (PET	1550
11858	23610	FORMER LANDFILL	LANDFILL WASTE	1950
11858	23609	ORGAN FACTORY - UNKNOWN O	MANUFACTURING PROCESS (e.g.	2800
11858	23603	BURKE-TUBBS MORTUARY	MORTUARY	1400
11858	23597	MOWERY'S USED AUTO PARTS	MACHINE SHOP/SHED	1300
11858	23611	MR. D'S LANDSCAPING	ABOVE GROUND STORAGE (PET	1200
11858	23618	ANNE'S LANDSCAPING SUPPLY	COMMERCIAL APPLICATION OR	1600
11858	23602	NATIONAL BYPRODUCTS INC TR	TRANSFER STATION	2100
11858	23593	FISCHER'S READY MIX	READY MIX/CEMENT	200
11858	23598	A & W INSULATION	STORE/SALES	1120
11858	23606	CITY OF FREEPORT STREET DE	DE-ICING AGENT	1550
11858	23605	CITY OF FREEPORT STREET DE	BELOW GROUND STORAGE (PET	1550
11858	23594	DOMINO'S PIZZA	WAREHOUSE	750
11858	23604	CATACOMB PRESS, INC.	PRINTING	950
11858	03646	FREEPORT RECYCLING	RECYCLING FACILITY	1335
11858	03644	ECONOMY INSULATION	STORE/SALES	1120
11858	03642	PERDUE MARINE SALES & SERV	VEHICLE SALES	1500
11858	03643	CITY OF FREEPORT	BELOW GROUND STORAGE (PET	750
11858	03640	PERDUE AUTO PARTS	SALVAGE YARD	1600
11858	03641	TIMBER HILL KENNEL	ZOO	1160
11858	03634	IRVIN MOTORS	VEHICLE SALES	750
11858	03637	UNKNOWN-OLD QUARY/JUNK C	QUARRYING OF CONSOLIDATED	800
11858	03636	R&W LIQUIDATORS	BELOW GROUND STORAGE (PET	980
11858	03638	IRVIN MOTORS USED AUTO PAR	MACHINE SHOP/SHED	1280
11858	03635	LAVENDER & LACE WOMEN'S AP	BELOW GROUND STORAGE (PET	905
11858	03645	CITY OF FREEPORT WTP	CHEMICAL HANDLING (i.e. MANU	510

Well ID	Map Code	Site Name	Site Description	Distance (Feet)
11858	03639	GILLS METALS	RECYCLING FACILITY	1900
11858	03633	R,S, & D READY MIX	READY MIX/CEMENT	200
11858	03647	CAR CRAFT AUTO BODY	AUTOBODY	1350
11859	23600	BP AMOCO SUPER PANTRY GAS	BELOW GROUND STORAGE (PET	1600
11859	23618	ANNE'S LANDSCAPING SUPPLY	COMMERCIAL APPLICATION OR	2400
11859	23611	MR. D'S LANDSCAPING	ABOVE GROUND STORAGE (PET	2100
11859	23601	CITGO ROAD RANGER GAS STA	BELOW GROUND STORAGE (PET	2100
11859	23610	FORMER LANDFILL	LANDFILL WASTE	1100
11859	23607	CRESTWOOD OIL BULK FUEL ST	ABOVE GROUND STORAGE (PET	2450
11859	23602	NATIONAL BYPRODUCTS INC TR	TRANSFER STATION	2250
11859	23603	BURKE-TUBBS MORTUARY	MORTUARY	800
11859	23608	CN RAILROAD YARD	TRAINYARD	1500
11859	23606	CITY OF FREEPORT STREET DE	DE-ICING AGENT	2450
11859	23605	CITY OF FREEPORT STREET DE	BELOW GROUND STORAGE (PET	2450
11859	23604	CATACOMB PRESS, INC.	PRINTING	800
11859	23609	ORGAN FACTORY - UNKNOWN O	MANUFACTURING PROCESS (e.g.	3650
11859	23593	FISCHER'S READY MIX	READY MIX/CEMENT	1100
11859	23597	MOWERY'S USED AUTO PARTS	MACHINE SHOP/SHED	900
11859	23595	WALGREEN DRUGSTORE	STORE/SALES	1700
11859	23594	DOMINO'S PIZZA	WAREHOUSE	1450
11859	23598	A & W INSULATION	STORE/SALES	400
11859	03639	GILLS METALS	RECYCLING FACILITY	1445
11859	03641	TIMBER HILL KENNEL	ZOO	555
11859	03647	CAR CRAFT AUTO BODY	AUTOBODY	550
11859	03636	R&W LIQUIDATORS	BELOW GROUND STORAGE (PET	1700
11859	03638	IRVIN MOTORS USED AUTO PAR	MACHINE SHOP/SHED	1120
11859	03640	PERDUE AUTO PARTS	SALVAGE YARD	900
11859	03642	PERDUE MARINE SALES & SERV	VEHICLE SALES	700
11859	03635	LAVENDER & LACE WOMEN'S AP	BELOW GROUND STORAGE (PET	1585
11859	03633	R,S, & D READY MIX	READY MIX/CEMENT	1100
11859	03644	ECONOMY INSULATION	STORE/SALES	400
11859	03646	FREEPORT RECYCLING	RECYCLING FACILITY	480
11859	03643	CITY OF FREEPORT	BELOW GROUND STORAGE (PET	150
11859	03634	IRVIN MOTORS	VEHICLE SALES	1450
11859	03637	UNKNOWN-OLD QUARY/JUNK C	QUARRYING OF CONSOLIDATED	1600
11860	23606	CITY OF FREEPORT STREET DE	DE-ICING AGENT	2100
11860	23609	ORGAN FACTORY - UNKNOWN O	MANUFACTURING PROCESS (e.g.	3300
11860	23608	CN RAILROAD YARD	TRAINYARD	1200
11860	23598	A & W INSULATION	STORE/SALES	700
11860	23605	CITY OF FREEPORT STREET DE	BELOW GROUND STORAGE (PET	2100
11860	23597	MOWERY'S USED AUTO PARTS	MACHINE SHOP/SHED	1000
11860	23595	WALGREEN DRUGSTORE	STORE/SALES	1350
11860	23610	FORMER LANDFILL	LANDFILL WASTE	1450
11860	23600	BP AMOCO SUPER PANTRY GAS	BELOW GROUND STORAGE (PET	1200
11860	23601	CITGO ROAD RANGER GAS STA	BELOW GROUND STORAGE (PET	1750
11860	23603	BURKE-TUBBS MORTUARY	MORTUARY	950
11860	23594	DOMINO'S PIZZA	WAREHOUSE	1150
11860	23593	FISCHER'S READY MIX	READY MIX/CEMENT	750
11860	23607	CRESTWOOD OIL BULK FUEL ST	ABOVE GROUND STORAGE (PET	2050
11860	23618	ANNE'S LANDSCAPING SUPPLY	COMMERCIAL APPLICATION OR	2050
11860	23604	CATACOMB PRESS, INC.	PRINTING	700
11860	23611	MR. D'S LANDSCAPING	ABOVE GROUND STORAGE (PET	1750

Well ID	Map Code	Site Name	Site Description	Distance (Feet)
11860	23602	NATIONAL BYPRODUCTS INC TR	TRANSFER STATION	2200
11860	03642	PERDUE MARINE SALES & SERV	VEHICLE SALES	1000
11860	03643	CITY OF FREEPORT	BELOW GROUND STORAGE (PET	255
11860	03645	CITY OF FREEPORT WTP	CHEMICAL HANDLING (i.e. MANU	35
11860	03646	FREEPORT RECYCLING	RECYCLING FACILITY	850
11860	03647	CAR CRAFT AUTO BODY	AUTOBODY	900
11860	03644	ECONOMY INSULATION	STORE/SALES	700
11860	03637	UNKNOWN-OLD QUARY/JUNK C	QUARRYING OF CONSOLIDATED	1250
11860	03641	TIMBER HILL KENNEL	ZOO	785
11860	03640	PERDUE AUTO PARTS	SALVAGE YARD	1200
11860	03639	GILLS METALS	RECYCLING FACILITY	1635
11860	03633	R,S, & D READY MIX	READY MIX/CEMENT	750
11860	03634	IRVIN MOTORS	VEHICLE SALES	1150
11860	03638	IRVIN MOTORS USED AUTO PAR	MACHINE SHOP/SHED	1165
11860	03635	LAVENDER & LACE WOMEN'S AP	BELOW GROUND STORAGE (PET	1225
11860	03636	R&W LIQUIDATORS	BELOW GROUND STORAGE (PET	1350
11861	23598	A & W INSULATION	STORE/SALES	1100
11861	23604	CATACOMB PRESS, INC.	PRINTING	1950
11861	23605	CITY OF FREEPORT STREET DE	BELOW GROUND STORAGE (PET	2300
11861	23606	CITY OF FREEPORT STREET DE	DE-ICING AGENT	2300
11861	23607	CRESTWOOD OIL BULK FUEL ST	ABOVE GROUND STORAGE (PET	2225
11861	23597	MOWERY'S USED AUTO PARTS	MACHINE SHOP/SHED	500
11861	23609	ORGAN FACTORY - UNKNOWN O	MANUFACTURING PROCESS (e.g.	3100
11861	23595	WALGREEN DRUGSTORE	STORE/SALES	2150
11861	23594	DOMINO'S PIZZA	WAREHOUSE	1975
11861	23593	FISCHER'S READY MIX	READY MIX/CEMENT	1300
11861	23618	ANNE'S LANDSCAPING SUPPLY	COMMERCIAL APPLICATION OR	2650
11861	23611	MR. D'S LANDSCAPING	ABOVE GROUND STORAGE (PET	2050
11861	23610	FORMER LANDFILL	LANDFILL WASTE	1450
11861	23608	CN RAILROAD YARD	TRAINYARD	1650
11861	23602	NATIONAL BYPRODUCTS INC TR	TRANSFER STATION	950
11861	23603	BURKE-TUBBS MORTUARY	MORTUARY	2100
11861	23601	CITGO ROAD RANGER GAS STA	BELOW GROUND STORAGE (PET	2400
11861	23600	BP AMOCO SUPER PANTRY GAS	BELOW GROUND STORAGE (PET	2000
11861	03647	CAR CRAFT AUTO BODY	AUTOBODY	1500
11861	03639	GILLS METALS	RECYCLING FACILITY	920
11861	03638	IRVIN MOTORS USED AUTO PAR	MACHINE SHOP/SHED	275
11861	03646	FREEPORT RECYCLING	RECYCLING FACILITY	1325
11861	03635	LAVENDER & LACE WOMEN'S AP	BELOW GROUND STORAGE (PET	2185
11861	03642	PERDUE MARINE SALES & SERV	VEHICLE SALES	1200
11861	03640	PERDUE AUTO PARTS	SALVAGE YARD	1000
11861	03644	ECONOMY INSULATION	STORE/SALES	1100
11861	03637	UNKNOWN-OLD QUARY/JUNK C	QUARRYING OF CONSOLIDATED	1800
11861	03634	IRVIN MOTORS	VEHICLE SALES	1975
11861	03633	R,S, & D READY MIX	READY MIX/CEMENT	1300
11861	03645	CITY OF FREEPORT WTP	CHEMICAL HANDLING (i.e. MANU	1255
11861	03643	CITY OF FREEPORT	BELOW GROUND STORAGE (PET	1220
11861	03641	TIMBER HILL KENNEL	ZOO	915
11861	03636	R&W LIQUIDATORS	BELOW GROUND STORAGE (PET	2150
11862	23609	ORGAN FACTORY - UNKNOWN O	MANUFACTURING PROCESS (e.g.	3000
11862	23601	CITGO ROAD RANGER GAS STA	BELOW GROUND STORAGE (PET	2350
11862	23600	BP AMOCO SUPER PANTRY GAS	BELOW GROUND STORAGE (PET	1900

Well ID	Map Code	Site Name	Site Description	Distance (Feet)
11862	23597	MOWERY'S USED AUTO PARTS	MACHINE SHOP/SHED	500
11862	23607	CRESTWOOD OIL BULK FUEL ST	ABOVE GROUND STORAGE (PET	2125
11862	23606	CITY OF FREEPORT STREET DE	DE-ICING AGENT	2200
11862	23608	CN RAILROAD YARD	TRAINYARD	1500
11862	23594	DOMINO'S PIZZA	WAREHOUSE	1975
11862	23595	WALGREEN DRUGSTORE	STORE/SALES	2100
11862	23611	MR. D'S LANDSCAPING	ABOVE GROUND STORAGE (PET	1950
11862	23602	NATIONAL BYPRODUCTS INC TR	TRANSFER STATION	950
11862	23598	A & W INSULATION	STORE/SALES	1140
11862	23603	BURKE-TUBBS MORTUARY	MORTUARY	2150
11862	23605	CITY OF FREEPORT STREET DE	BELOW GROUND STORAGE (PET	2200
11862	23618	ANNE'S LANDSCAPING SUPPLY	COMMERCIAL APPLICATION OR	2550
11862	23593	FISCHER'S READY MIX	READY MIX/CEMENT	1300
11862	23604	CATACOMB PRESS, INC.	PRINTING	2000
11862	23610	FORMER LANDFILL	LANDFILL WASTE	1600
11862	03647	CAR CRAFT AUTO BODY	AUTOBODY	1500
11862	03646	FREEPORT RECYCLING	RECYCLING FACILITY	1385
11862	03640	PERDUE AUTO PARTS	SALVAGE YARD	1000
11862	03639	GILLS METALS	RECYCLING FACILITY	1050
11862	03645	CITY OF FREEPORT WTP	CHEMICAL HANDLING (i.e. MANU	1235
11862	03637	UNKNOWN-OLD QUARY/JUNK C	QUARRYING OF CONSOLIDATED	1800
11862	03636	R&W LIQUIDATORS	BELOW GROUND STORAGE (PET	2100
11862	03635	LAVENDER & LACE WOMEN'S AP	BELOW GROUND STORAGE (PET	2105
11862	03633	R,S, & D READY MIX	READY MIX/CEMENT	1300
11862	03638	IRVIN MOTORS USED AUTO PAR	MACHINE SHOP/SHED	390
11862	03643	CITY OF FREEPORT	BELOW GROUND STORAGE (PET	1240
11862	03641	TIMBER HILL KENNEL	ZOO	990
11862	03644	ECONOMY INSULATION	STORE/SALES	1140
11862	03642	PERDUE MARINE SALES & SERV	VEHICLE SALES	1200
11862	03634	IRVIN MOTORS	VEHICLE SALES	1975
11863	23608	CN RAILROAD YARD	TRAINYARD	1650
11863	23609	ORGAN FACTORY - UNKNOWN O	MANUFACTURING PROCESS (e.g.	3200
11863	23610	FORMER LANDFILL	LANDFILL WASTE	1350
11863	23618	ANNE'S LANDSCAPING SUPPLY	COMMERCIAL APPLICATION OR	2650
11863	23593	FISCHER'S READY MIX	READY MIX/CEMENT	1300
11863	23611	MR. D'S LANDSCAPING	ABOVE GROUND STORAGE (PET	2100
11863	23594	DOMINO'S PIZZA	WAREHOUSE	1975
11863	23595	WALGREEN DRUGSTORE	STORE/SALES	2150
11863	23602	NATIONAL BYPRODUCTS INC TR	TRANSFER STATION	1000
11863	23603	BURKE-TUBBS MORTUARY	MORTUARY	2050
11863	23601	CITGO ROAD RANGER GAS STA	BELOW GROUND STORAGE (PET	2450
11863	23600	BP AMOCO SUPER PANTRY GAS	BELOW GROUND STORAGE (PET	2000
11863	23604	CATACOMB PRESS, INC.	PRINTING	1900
11863	23605	CITY OF FREEPORT STREET DE	BELOW GROUND STORAGE (PET	2400
11863	23598	A & W INSULATION	STORE/SALES	1070
11863	23607	CRESTWOOD OIL BULK FUEL ST	ABOVE GROUND STORAGE (PET	2300
11863	23597	MOWERY'S USED AUTO PARTS	MACHINE SHOP/SHED	500
11863	23606	CITY OF FREEPORT STREET DE	DE-ICING AGENT	2400
11863	03633	R,S, & D READY MIX	READY MIX/CEMENT	1300
11863	03639	GILLS METALS	RECYCLING FACILITY	840
11863	03641	TIMBER HILL KENNEL	ZOO	810
11863	03636	R&W LIQUIDATORS	BELOW GROUND STORAGE (PET	2150

Well ID	Map Code	Site Name	Site Description	Distance (Feet)
11863	03643	CITY OF FREEPORT	BELOW GROUND STORAGE (PET	1165
11863	03640	PERDUE AUTO PARTS	SALVAGE YARD	950
11863	03642	PERDUE MARINE SALES & SERV	VEHICLE SALES	1150
11863	03637	UNKNOWN-OLD QUARY/JUNK C	QUARRYING OF CONSOLIDATED	1800
11863	03634	IRVIN MOTORS	VEHICLE SALES	1975
11863	03635	LAVENDER & LACE WOMEN'S AP	BELOW GROUND STORAGE (PET	2175
11863	03647	CAR CRAFT AUTO BODY	AUTOBODY	1400
11863	03646	FREEPORT RECYCLING	RECYCLING FACILITY	1225
11863	03644	ECONOMY INSULATION	STORE/SALES	1070
11863	03645	CITY OF FREEPORT WTP	CHEMICAL HANDLING (i.e. MANU	1200
11863	03638	IRVIN MOTORS USED AUTO PAR	MACHINE SHOP/SHED	180

OTHER IDENTIFIED POTENTIAL SOURCES:

For this community water supply, no additional potential sources of contamination have been identified beyond those in Illinois EPA databases.

SUSCEPTIBILITY TO CONTAMINATION:

To determine Freeport's susceptibility to groundwater contamination, the Illinois Rural Water Association conducted a well site survey in January 2003. Based upon this information, there are 33 potential sources of groundwater contamination that could pose a hazard to groundwater utilized by Freeport's community water supply. These include a zoo, a printing facility, mining of consolidated or unconsolidated material, a salvage yard, a chemical handling facility, an auto body shop, a warehouse, a transfer station, a mortuary, de-icing agent storage, a train yard, a manufacturing process, landfill waste, 1 commercial application or warehousing of pesticides and or/or fertilizers, 2 vehicle sales, 2 ready mix/cement facilities, 2 machine shops/sheds, 2 recycling facilities, 2 above ground fuel storage tanks, 3 store/sales, and 6 below ground fuel storage tanks. In addition, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated sites with on-going remediation that might be of concern.

Based upon this information, the Illinois EPA has determined that the Freeport Community Water Supply's source water for wells #2, #3, #4, #5, #6, and #7 is susceptible to contamination. The source water for well #8 is not susceptible to contamination. As such, the Illinois EPA has provided 5-year recharge area calculations for wells #2, #3, #4, #5, #6, and #7. The land use within the recharge areas of the wells was analyzed as part of this susceptibility determination. This land use includes residential, commercial and agricultural properties.

SOURCE WATER PROTECTION EFFORTS:

The Illinois Environmental Protection Act provides minimum protection zones of 400 feet for Freeport's wells #2, #3, #4, #5, #6, and #7 and 200 feet for well #8. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to the source water, a maximum protection zone may be established, which is authorized by the Illinois Environmental Protection Act and allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from their wells.

To further minimize the risk to the city's groundwater supply, the Illinois EPA recommends the following additional activities be considered. First, the water supply staff may wish to conduct contingency planning. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe or adequate water. Second, the water supply staff is encouraged to review their cross connection control ordinance to ensure that it remains current and viable. Cross connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives. Finally, the Illinois EPA recommends that the city investigate additional source water protection management options to address the land use activities within the wells' recharge area. Specifically, these management options should address possible impacts from potential point sources, and non-point sources related to agricultural land uses.

To further reduce the risk to source water, Freeport may wish to implement a wellhead protection program, which includes the proper abandonment of potential routes of groundwater contamination within the recharge area,

management of potential sources of contamination and correction of any sanitary defects that might be present at the water treatment facility.