



- Estimated zone of contribution assuming 100% design capacity pumping rate (3 million gallons per day).
- ..... Estimated zone of contribution assuming 50% design capacity pumping rate (1.5 million gallons per day).

*Note: Zones of contribution/times of travel based off figures included in the Unit Well 15 Wellhead Protection Plan dated October 2003 and prepared by Strand Associates, Inc.*

Estimated shallow groundwater flow direction based on a review of the WDNR GIS Registry and/or Leaking Underground Storage Tank and Environmental Repair Program case file information

Sites recommended for initial Field Screening Investigation

**Sites (site order based on likelihood of impact to Unit Well 15)**

1. Former Day One Formal Wear
2. Whistle Stop Cleaners
3. Former Duraclean and Johnny on the Spot
4. Former Sherman Williams
5. Former Klinke Cleaners
6. Former Paul's Classic Cleaners
7. Former Wickcraft Manufacturing Company
8. Office Depot
9. Bell Laboratories
10. Former Print Tech
11. Klinke Cleaners
12. Former RTRV Partnership Landfill
13. Former Russ Darrow Landfill
14. Zimbrick Body Shop
15. Dane County Regional Airport
16. Hy-Vee
17. Former Prange Way
18. Mobil Gas Station
19. Madison Gas & Electric
20. Amcor Flexibles Healthcare
21. BP Gas Station
22. Stanton Optical
23. Goodyear Service
24. Midas
25. Former Clark Oil Station
26. Sears
27. Planned Parenthood of Wisconsin
28. Thermastor
29. Capitol Britton Station
30. Madison Area Technical College
31. Virent Energy
32. Tires Plus

**PRELIMINARY RESULTS**

Note: Basemap (streets and parcels) obtained from Dane County Interactive GIS Map.



PCE CONTAMINANT SOURCE INVENTORY

**UNIT WELL 15  
3900 E. WASHINGTON AVE.  
MADISON, WISCONSIN**

PROJECT NO. 60263461	DRAWN BY: KAM	DATE: 04/10/2012	<b>FIGURE 2</b>
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Table 1 - Site Summary Table  
PCE Contaminant Source Inventory  
Unit Well 15  
3900 East Washington Avenue  
Madison, Wisconsin  
April 2012

**PRELIMINARY**

Site Number	Site and Address	Property Use Concerns and Approximate Period of Operation	Approx. Distance and Direction from Unit Well 15	Estimated Time of Travel of Groundwater from Site to Unit Well 15 <sup>1</sup>	Comments	References
1	Former Day One Formal Wear 3939 Lien Rd	Possible former dry cleaner (around 1986)	800 feet southeast	0 to 5 years	Day One Formal Wear is registered as a former generator of hazardous wastes (spent halogenated solvents).	EDR RCRA-NonGen, FINDS, SHWIMS 1976, 1986, and 1991 City Directory 1976 Aerial Photo
2	Whistle Stop Cleaners 4512 E. Washington Ave	Dry cleaner (1984 - present)	3,700 feet northeast	5 to 50 years (closer to 50 years)	Whistle Stop Cleaners is registered as a conditionally exempt small quantity generator of hazardous wastes which included spent halogenated solvents.	EDR RCRA-CESQG, FINDS, Manifest, SHWIMS 1986, 1991, and 2001 City Directory 1987 Telephone Directory Madison Assessment Records
3	Former Duraclean and Johnny on the Spot 3553 and 3555 E. Washington Ave	Dry cleaner (1959 - 1969)	2,900 feet southwest	Outside zone of contribution for 100 year time of travel	Site listed under cleaners in telephone directories. According to advertisements in the telephone directories, coin operated dry cleaning machines were used at the site.	1959 and 1969 Telephone Directories WDNR Interview
4	Former Sherman Williams 1753 Thierer Rd	Paint store (1981 - 1991)	1,600 feet northeast	5 to 50 years (closer to 5 years)	Sherman Williams is registered as a former generator of hazardous wastes (spent halogenated solvents).	EDR RCRA-NonGen, FINDS, SHWIMS 1981, 1986, and 1991 City Directory
5	Former Klinke Cleaners 4292 East Towne Blvd	Dry cleaner (1990-1995)	2,500 feet northeast	5 to 50 years (closer to 50 years)	The current buildings at the site were constructed in 1987.	1991 City Directory 1990 and 1995 Telephone Directories
6	Former Paul's Classic Cleaners 1623 N. Stoughton Rd	Dry cleaner (1991-1995)	1,400 feet southwest	5 to 50 years (closer to 50 years)	The cleaners was located on the PDQ Gas Station property. Gasoline and diesel USTs are registered at the site. A LUST case was opened at the PDQ site in 1996. The case was closed by DSPS in 2002. DSPS handles petroleum cases only, so it is not expected that PCE was detected at the site during the LUST investigation.	EDR UST 1991 City Directory 1990 and 1995 Telephone Directories Area Resident Interview
7	Former Wickcraft Manufacturing Company 1609 N. Stoughton Rd.	Industrial (1950 - 2000s)	1,500 feet southwest	5 to 50 years (closer to 50 years)	The site was formerly occupied by manufacturer of iron and steel products.	1971-2001 City Directories Madison Assessment Records
8	Office Depot 4016 E. Washington Ave	Municipal garage (1955 - 1995)	1,500 feet northeast	5 years	Site was formerly developed as the Burke Town Hall. Gasoline and diesel USTs were removed in 1990. A LUST case was opened at the site in 1989 and closed in 2004. Based on a review the GIS Registry package, samples collected as part of the LUST investigation were apparently collected for petroleum related analysis only. Groundwater was measured to flow to the southwest at the site. The Burke Town landfill is located at Nelson/Reiner Roads, which is outside the Unit Well 15 capture zone.	EDR UST, LUST, SWF/LF, SHWIMS, WRRSER, CRS, AUL WDNR GIS Registry 1957 City Directory 1955 Aerial Photo
9	Bell Laboratories 3699 Kinsman Blvd	Industrial facility that generated spent solvent waste (1976 - present)	2,100 feet northwest	50 to 100 years	The site is registered as a large quantity generator of hazardous waste. Hazardous wastes generated at the site include spent halogenated solvents and PCE. Spill cases were opened at the site following spills of petroleum (unknown type) and ethanol.	EDR RCRA-LQG, Spills, FTTS, HIST FTTS, SSTS, FINDS, Manifest, SHWIMS 1991 and 2001 City Directory 1976 Aerial Photo
10	Former Print Tech 3694 Kinsman Blvd	Industrial facility that generated spent solvent waste (1976 - unknown)	2,300 feet northwest	50 to 100 years	Print Tech was apparently located at the site historically and was registered as a former generator of hazardous waste. Hazardous wastes generated at the site include spent halogenated solvents and PCE.	EDR RCRA-NonGen, FINDS, SHWIMS 1976 Aerial Photo
11	Klinke Cleaners 1726 Thierer Rd	Dry cleaner (1996 - present)	1,500 feet east	5 years (closer to 5 years)	PCE was used at the site from the late 1990's to the early 2000's. The building was constructed in 1996. Site is registered as a former generator of hazardous wastes (spent halogenated solvents). An ERP case was opened at the site in 2008 due to the presence of benzene in a soil sample and remains open. Chlorinated compounds were not detected in soil and groundwater samples collected during the ERP investigation.	EDR RCRA-NonGen, ERP, SHWIMS, FINDS 2000 Telephone Directory Site Reconnaissance Madison Assessment Records WDNR Interview

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12	Former RTRV Partnership Landfill Lien Road	Landfill (1977 - 1991)	1,700 feet east	5 to 50 years	According to location information provided in the SHWIMS database, the inactive RTRV Partnership Landfill is located near the intersection of Lien Road and Thierer Road. The seven acre landfill was originally licensed in 1977 and was deactivated around 1991. Wastes handled at the facility included foundry sand.	WDNR SHWIMS
13	Former Russ Darrow Landfill Thierer and Lien Roads	Landfill (unknown)	2,000 feet east	5 to 50 years	According to location information provided in the SHWIMS database, the inactive Russ Darrow Landfill is located near the intersection of Lien Road and Thierer Road. The landfill size was listed as six acres.	WDNR SHWIMS
14	Zimbrick Body Shop 1707 N. Stoughton Rd	Vehicle repair that generates spent solvent waste (1976 - present)	1,100 feet west	5 to 50 years	Site is registered as a conditionally exempt small quantity generator of hazardous wastes including spent halogenated solvents. A LUST case was opened in 1992 and closed in 1999. Gasoline, diesel, and "other" USTs are registered as being removed from the site. PCE was not detected in samples collected during the LUST investigation. Groundwater was measured to flow to the south or southwest, with some indications of radial flow during the LUST investigation.	EDR RCRA-CESQG, LUST, UST, SHWIMS, WRRSER 1976 Aerial Photo
15	Dane County Regional Airport 4000 International Lane	Aircraft maintenance (1942 - present)	3,300 feet northwest	Outside zone of contribution for 100 year time of travel	The airport was formerly used as an army airfield as early as 1942 and was used as a military training and maintenance area. Multiple LUST and ERP cases have been opened at the Dane County Regional Airport complex. One of the ERP cases remains open.	EDR Closed LUST Open and Closed ERP
16	Hy-Vee 1320 Mendota St.	Vehicle service station (1976 - 2005) Cleaning Company (2000 - present)	800 feet southwest	5 to 50 years	The site was listed as a B&J Cleaning in a 2000 and 2005 telephone directory, however records indicating dry cleaning activities at the site were not identified. The site was used an automotive service center as early as 1976. A LUST case was opened at the site in 1995 and closed in 1998. Three waste oil USTs, a fuel oil UST, and a waste oil AST are registered as being removed from the site between 1990 and 2005. The site is registered as a former generator of hazardous waste.	EDR BRRTS, LUST, SHWIMS, NAR, RCRA-NonGen, FINDS 1976 City Directories 2000 and 2005 Telephone Directories 1976 Aerial Photo
17	Former Prange Way 53 East Towne Mall	Former Cleaning Operations (1971 - 1984)	3,500 feet east	Outside zone of contribution for 100 year time of travel	The discount department store was listed as a cleaner in a 1984 telephone directory, however records indicating dry cleaning activities at the site were not identified. The store was located in the East Towne Mall, which opened in 1971. Records indicating dry cleaning activities at the site were not identified.	Historical Telephone Directories 1984 City Directory
18	Mobil Gas Station 3859 E. Washington Ave	Vehicle service station (1980 - present)	400 feet southeast	0 to 5 years	USTs containing gasoline, fuel oil, and used motor oil were removed from the site in 1988. Unleaded gasoline USTs are use at the site. Benzene and ignitable hazardous wastes generated at the site. Gasoline spill in 1991 caused by an overfilled UST. Spill case closed. The site is registered as a former generator of hazardous waste (ignitable wastes and benzene). Gasoline was spilled at the site in 1991.	EDR RCRA-NonGen, FINDS, SPILLS, SHWIMS, UST
19	Madison Gas & Electric 4012 Lien Rd	Utility (unknown)	1,400 feet east	5 years	An ERP case was opened at the site in 1997 and closed in 1998.	EDR ERP
20	Amcor Flexibles Healthcare 4101 Lien Rd	Industrial (1968 - present)	1,200 feet southeast	5 to 50 years	Site occupied by a paper bag manufacture in 1976 as a medical packaging manufacturer in 1986. A double-walled chemical AST is in use at the property. Site is registered as a large quantity generator of hazardous waste (non halogenated solvents). An ERP was opened at the site in 1992 and closed in 2006. Based on a review the GIS Registry package, samples collected as part of the ERP investigation were apparently collected for toluene analysis only. Groundwater was measured to flow to the northwest at the site. Spill incidents at the site have resulted in releases of transformer fluid, volatile organic compounds, ammonia, non-chlorinated solvents. The spill cases have been closed.	EDR RCRA-LQG, FINDS, NPDES, MANIFEST, Tier 2, AST, CRS, ERP, SPILLS, SHWIMS, HMIRS WDNR GIS Registry 1976 and 1986 City Directory 1968 Aerial Photo

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21	BP Gas Station 4222 E. Washington Ave	Vehicle service station (1965 - present)	2,700 feet northeast	5 to 50 years	A LUST case was opened at the site in 1985 and closed in 2008. Based on a review the GIS Registry package, samples collected as part of the LUST investigation were apparently collected for petroleum related analysis only. Groundwater was measured to flow to the southwest at the site. USTs containing gasoline and fuel oil were removed from the site between 1990 and 2003. Gasoline USTs and a fuel oil UST are registered as being in use at the site. Gasoline was spilled at the site in 1995. Site is registered as a conditionally exempt small quantity generator of hazardous waste (ignitable and corrosive wastes, lead, and benzene).	EDR RCRA-CESQG, LUST, UST, CRS, Spills, WRRSER, FINDS, AUL, SHWIMS WDNR GIS Registry 1965 City Directory
22	Stanton Optical 4302 E. Washington Ave	Vehicle service station (1965 - 2006)	2,900 feet northeast	5 to 50 years	USTs containing gasoline and used motor oils are registered as being closed at the site. A LUST case was opened at the site in 2006 and closed in 2010. Based on a review the GIS Registry package, samples collected as part of the LUST investigation were apparently collected for petroleum and polycyclic aromatic hydrocarbons analysis only. Groundwater was measured to flow to the southwest at the site.	EDR LUST, UST, CRS, AUL WDNR GIS Registry 1965 City Directory
23	Goodyear Service 3773 E. Washington Ave	Vehicle service station (1976 - present)	1,300 feet southwest	5 to 50 years	Site is registered as a conditionally exempt small quantity generator of hazardous wastes (ignitable wastes, cadmium, chromium, lead, and benzene). A waste/used motor oil UST was removed from the site in 1995. A kerosene AST was removed from the site. A waste/used motor oil AST is in use at the site.	EDR RCRA-CESQG, FINDS, SHWIMS, UST, BRRTS, AST 1976 City Directory 1976 Aerial Photo
24	Midas 3757 E. Washington Ave	Vehicle service station (1976 - present)	1,500 feet southwest	5 to 50 years	Engine waste oil was spilled at the site in 2003.	EDR SPILLS 1976 Aerial Photo
25	Former Clark Oil Station 1601 N. Stoughton Rd	Vehicle service station (1955 - 2007)	1,600 feet southwest	50 years	A LUST case was opened at the site in 1991 and closed in 1998. Groundwater was measured to flow to the west and northwest. Seven gasoline USTs were removed from the site between 1991 and 2007. The site is registered as former generator of hazardous waste (ignitable wastes and benzene)	EDR LUST, CRS, AUL, WRRSER, SHWIMS, RCRA-NonGen, FINDS, UST, AST 1976 City Directory 1976 Aerial Photo
26	Sears 43 East Towne Way	Vehicle service station (1971 - present)	3,000 feet northeast	Outside zone of contribution for 100 year time of travel	Eight USTs containing gasoline, used oil, and unknown were removed from the property. A used motor oil AST is in use. An ERP case was opened at the site in 1998 and closed in 1999. Site is registered as a conditionally exempt small quantity generator of hazardous waste (ignitable wastes and benzene).	EDR RCRA-CESQG, UST, AST, ERP, FINDS, BRRTS, Manifest, AUL, Tier 2, SHWIMS
27	Planned Parenthood of Wisconsin 3706 Orin Rd	Oil company (1962 - 2000)	1,300 feet northwest	5 to 50 years	Site formerly developed as a oil company. A LUST case was opened at the site in 1992 and closed in 2001. Based on a review the GIS Registry package, samples collected as part of the LUST investigation were apparently collected for petroleum related analysis only. Groundwater was measured to flow to the southeast.	EDR SHWIMS, LUST, CRS, AUL, WRRSER WDNR GIS Registry 1976 City Directory 1962 Aerial Photo
28	Thermastor 4201 Lien Rd	Industrial (1968 - present)	1,600 feet southeast	5 to 50 years	Site formerly occupied by a box manufacturer. An ERP case was opened in 1991 and closed in 2008. Based on a review the GIS Registry package, chlorinated solvents were analyzed for, but not detected in groundwater samples collected as part of the ERP case. Groundwater was measured to flow to the northwest at the site. Diesel fuel was spilled at the site in 1995. Four chemical ASTs were removed from the site in 1992. Diesel and gasoline USTs were removed from the site in 1985. The site is registered as a former generator of hazardous waste.	EDR UST, AST, CRS, ERP, SPILLS, , AUL, SHWIMS, RCRA-NonGen, FINDS WDNR GIS Registry 1976 City Directory 1968 Aerial Photo
29	Capitol Britton Station 3868 E. Washington Ave	Vehicle service station (1957 - 1995)	300 feet west	5 years	A LUST case was opened at the site in 1997 and remains open. PCE was analyzed during groundwater monitoring in 1997. PCE has not detected in groundwater samples. Groundwater was measured to flow to the north and northeast.	EDR LUST 1957 to 2006 City Directories
30	Madison Area Technical College 3550 Anderson St.	Maintenance operations (1986 - present)	1,700 feet west	50 years	A LUST case was opened at the site in 1992 and closed in 1993. Used oil and fuel is stored at the site in USTs and ASTs. Petroleum was spilled at the site in 1987. Site is listed as a small quantity generator of hazardous waste including ignitable, corrosive, and reactive materials.	EDR LUST, RCRA-SQG, FINDS, Manifest, AIRS, SHWIMS, Tier II, SPILLS, UST, AST 1986 Aerial Photo

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31	Virent Energy 3551 Anderson St	Industrial (2005 - present)	1,700 feet southwest	50 years	Site is listed as a large quantity generator of hazardous waste including ignitable wastes, benzene, methyl ethyl ketone, pyridine, and non-halogenated solvents. Hazardous waste, gasoline, and diesel ASTs are registered as being in use at the site.	EDR RCRA-LQG, AST
32	Tires Plus 1450 Macarthur Rd	Vehicle service station (2000 - present)	2,100 feet southwest	50 years	Site is listed as a conditionally exempt small quantity generator of hazardous waste. New and used motor oil ASTs are registered at the site.	EDR RCRA-CESQG, FINDS, AST

**Notes**

<sup>1</sup>: Estimated time of travel for groundwater based on Figure 3-3, 5, 50 & 100 YEAR T.O.T. Z.O.C. ASSUMING PUMPING RATE AT 100 PERCENT CAPACITY (3MGD), included in the Wellhead Protection Plan for Unit Well 15 dated October 2003, Strand Associates, Inc.

**Acronyms and Abbreviations**

AST: Aboveground Storage Tank  
AUL: Activity Use Limitation  
BRRTS: Bureau of Remediation and Redevelopment Tracking System  
CESQG: Conditionally Exempt Small Quantity Generator of Hazardous Waste  
CRS: Closed Remediation Sites  
EDR: Environmental Data Resources Inc.  
ERP: Environmental Repair Program  
FINDS: Facility Index System/Facility Registry System  
FTTS: Federal Insecticide, Fungicide, & Rodenticide Act/Toxic Substances Control Act Tracking System  
GIS: Geographic Information System  
LQG: Large Quantity Generator of Hazardous Waste  
LUST: Leaking Underground Storage Tank  
NAR: No Action Required  
NonGen: Former Generators of Hazardous Waste  
NPDES: National Pollutant Discharge Elimination System  
RCRA: Resource Conservation and Recovery Act  
SHWIMS: Solid & Hazardous Waste Information Management System  
SPILLS: Wisconsin Spills Database  
SSTS: Section 6 of the Federal Insecticide, Fungicide and Rodenticide Act Tracking System  
UST: Underground Storage Tank  
WRRSER: Wisconsin Remedial Response Site Evaluation Report