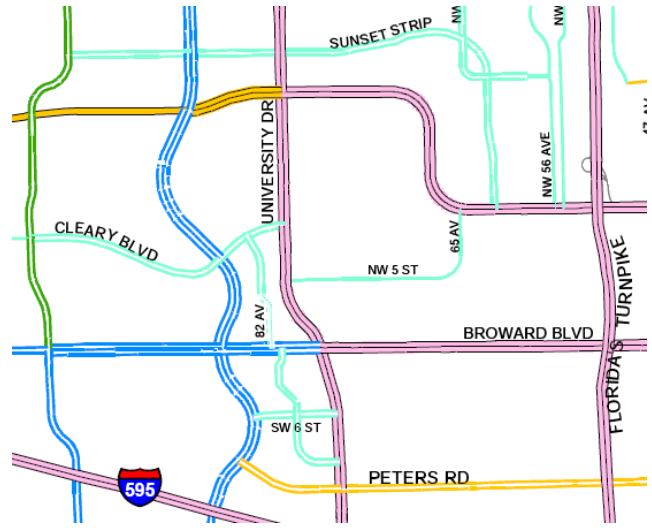




Determining Roadway and Right-of-Way Ownership

It is not uncommon for soil or groundwater contamination to migrate off of a source area property, necessitating access along roadways and rights-of-way to pursue contaminant plumes off-site. Site Assessments conducted per Section 600 of rules specified by Chapters 62-770, 62-780, 62-782, and 62-785, Florida Administrative Code, must include complete definition of the horizontal and vertical extent of soil and groundwater contamination. The regulations also require impacted off-site property owners to be notified of contamination or temporary points of compliance on their property. More information on the off-site notification requirements is presented in the March/April 2008 edition of this newsletter, which can be found at:

http://www.broward.org/pprd/cs_remediationtimes.htm



The Florida Department of Environmental Protection has indicated that the roadways adjacent to contaminated properties must be considered as separate properties for the purposes of the noticing requirements, and therefore the roadway owners must be properly identified and notified if contamination extends into a roadway. Determining the roadway owners and obtaining permits for access (if necessary) can be difficult and time consuming, so these efforts should be initiated promptly and with a sense of urgency. The following information is provided to assist with the identification of the proper roadway and right-of-way authorities.

Broward County Sites:

The roadway jurisdiction for major roads within Broward County is shown on a map prepared by the Metropolitan Planning Organization located at: <http://www.broward.org/transportationplanning/tpi03302.pdf>

This map has a Legend on the left side which identifies the roadway classifications and jurisdictions.

See ***Determining Roadway Ownership***, continued on Page 2

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Additional information can be found at the Broward County Metropolitan Planning Organization Division website at: <http://www.broward.org/transportationplanning/>



Many roadways are under the jurisdiction of the local city. Links to the websites for cities within Broward County are provided at: <http://www.broward.org/links.htm#Cities>

Property ownership information is available from the Broward County Property Appraiser's website at: <http://www.bcpa.net/>

It contains a searchable database, maps, and aerial photographs. This website is a good resource for determining property lines and right-of-way areas, although roadway and right-of-way jurisdictions are not always listed in the database.

Sites throughout the State:

Information on the proper roadway authorities for sites throughout the State can be found at the following Florida Department of Transportation website: <http://www.dot.state.fl.us/surveyingandmapping/maps.shtm>

At this website are links to roadway maps for each county:
<http://www.dot.state.fl.us/surveyingandmapping/countymap.shtm>

Note that these are large files so there may be some delays while opening them, but they contain a lot of information. The legend is located at the bottom of the map to permit identification of the roadway authority. These are high resolution maps which can be enlarged for close detail.

Also available is right-of-way contact information for each county and FDOT district:
<http://www.dot.state.fl.us/surveyingandmapping/rowmap.shtm>

The Broward County website includes links to the websites for other Florida counties:
<http://www.broward.org/links.htm#Counties>

If you have questions about this article, you may contact John J. Gomolka, P.G. at (954) 519-1279 or jgomolka@broward.org.



Shallow Monitoring Wells with Submerged Screens

Recently the Broward County Pollution, Prevention and Air Quality Division (Division) has reviewed groundwater sampling logs that documented the sampling of shallow monitoring wells (MWs) with submerged screens - that is, monitoring wells in which the elevation of the water table is above the top of the well screen. At petroleum contaminated sites, the intersection of the screened interval of a shallow MW with the surface of the water table is important for the following reasons:

- The highest concentrations of petroleum related compounds are usually at the surface of the water table. If the water table is above the screened interval of the MW, the most-contaminated water may be unavailable for collection and the samples may not be representative of the true groundwater quality at the site.
- If free product is present at the site, the product may be excluded from MWs with submerged screens and an accurate estimate of the volume of free product at the site may not be possible. Product recovery efforts from MWs with submerged screens may not be possible or effective, since the product may be excluded from the zone of extraction. In areas located outside of the source area, the migration of free product may not be detected if the shallow MWs have submerged screens.

As discussed in Section B.6 of the May 2, 2005, FDEP SOP PCS-006, entitled *Design, Installation and Placement of Monitoring Wells*, the screened interval of shallow MWs should intersect the top of the water table during all the seasonal fluctuations of the water table. Therefore, the seasonal range of the water table, and not only the current groundwater depth, should be considered prior to the installation of the MW. The MW installation and construction requirements are discussed in detail in SOP PCS-006, which can be found at the following internet address:

http://www.dep.state.fl.us/waste/quick_topics/publications/pss/pcp/MW-SOP-Final-Ap15.pdf

Unusual variations of the water table may create situations in which the screens of properly installed MWs become submerged. Section B.3 of the May 2, 2005, FDEP SOP PCS-005, entitled *Groundwater Sampling Standard Operating Procedures Variances and Clarifications for Bureau of Petroleum Storage Systems Sites*, discusses the sampling of shallow MWs with submerged screens. Groundwater sampling should be conducted using the purging and stabilization method as if the screened interval of the MW were partially submerged. The groundwater sample should be collected from the top of the water table - not the middle of the submerged screen interval of the MW. The purging method should utilize well volumes instead of equipment volumes, which are used for deep MWs (such as vertical extent wells) with submerged screens. SOP PCS-005 can be found at:

http://www.dep.state.fl.us/waste/quick_topics/publications/pss/pcp/BPSSVariances-Final-May02-2005.pdf

The general groundwater sampling procedures and requirements are discussed in detail in the FDEP SOP FS 2200, which can be found at: <http://www.dep.state.fl.us/labs/qa/sops.htm>



The majority of the shallow MWs in Broward County are installed properly and submerged screens are not an issue. If shallow wells are installed without considering the seasonal variation of the water table and wells become submerged, replacement MWs may be necessary. The FDEP documents discussed above provide detailed MW installation and sampling guidelines. Questions regarding this article may be directed to Fraser Mickle at (954) 519-1288 or fmickle@broward.org.

14th Annual Florida Remediation Conference

The Fourteenth Annual Florida Remediation Conference (FRC) was presented October 16th and 17th, 2008, at the Orlando Radisson WorldGate Resort by the National Technical Communications Company, Inc., which publishes the Florida Specifier. Over 400 attendees, including staff from the Broward County Environmental Assessment and Remediation Section, were on hand to hear more than 27 speakers discuss the latest advances in existing and innovative remedial strategies and the current regulatory atmosphere. Over 70 vendors, including environmental laboratories, drilling firms, trade groups and environmental consultants showcased their products and services. According to Mike Eastman, FRC Manager, the number of attendees and exhibitors was up from previous years.

During the two-day conference, speakers were generally grouped into the following themes: laboratory analysis and data quality, bioremediation, and chemical oxidation. There was also a presentation on an approach at a golf course in Broward County to assess arsenic contamination, manage on-site soils, and implement engineering and/or institutional controls to comply with alternative soil cleanup target levels for the proposed land use. Key technical points that were discussed at the FRC included:

- Proper assessment is an essential element for the design and implementation of a remedial system.
- Delivery! Delivery! Delivery!: Bioremediation and chemical oxidation are proven technologies which are effective at treating contamination as long as microorganisms, biostimulants and/or chemical reactants come into contact with target areas where contaminants are present.
- Bioremediation and chemical oxidation systems must be designed to deliver enough of the active ingredients to satisfy not only the demand of the dissolved contaminants but also the demands of the free floating product, adsorbed contaminants, and naturally existing competing substances.

For the past 14 years, the FRC has given consultants, laboratory, regulatory agencies, contractors, and suppliers the opportunity to meet and introduce their knowledge, products and services. The 2009 FRC is scheduled for October 15th and 16th, 2009. Additional information may be found at the Enviro-Net website which also provides information on Florida's environmental issues and regulations: <http://www.enviro-net.com>



HAPPY HOLIDAYS!

The Staff of the Broward County Environmental Protection and Growth Management Department wishes all of you a safe and enjoyable holiday season and a prosperous new year!



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