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Resource

NEWS & VIEWS

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INFORMATION FOR THE ENVIRONMENTAL AND ENGINEERING INDUSTRY

Planning and Zoning Changes for Maryland

The deadline is fast approaching for local governments to meet new requirements pertaining to comprehensive planning, land preservation, and municipal annexations. In 2006, two bills were passed in the Maryland General Assembly (House Bill 1141 and Senate Bill 5/ House Bill 2) pertaining to mandated planning efforts and preparation of local comprehensive plans. Two of the relevant planning elements in the new legislation address water resources and municipal growth.

The Water Resources Element and the Municipal Growth Element of Maryland's Comprehensive Planning requirements must both be in place by October 1, 2009. That deadline is not far away given the amount of time required to prepare these elements and the time needed for the approval process.



Water resource planning is essential to the sustenance of Maryland's natural resources

Water, Water Everywhere?

Maryland's new **Water Resources Plan Element** addresses the vital relationship of water resources to planned growth, both for waste disposal and safe drinking water. Thorough analysis is required to determine if there is an adequate water supply for existing land uses plus potential future needs as identified in the comprehensive plan. This element must also identify waters that are suitable to receive both wastewater and water from storm water management facilities. This can be a challenging process when receiving waters are upstream of water supply sources, especially in headwater areas.

ARM recently assisted the Town of Myersville, Frederick County, with an analysis of its water resources. ARM reviewed the relationship between the potential safe drinking water availability from all sources, potential development based on the land use plan, and the existing and future capacity of the waste disposal facility.

Water resource planning is one area in which joint planning agreements with other governing bodies – as permitted and encouraged by the new Municipal Growth Element – is not only absolutely required when it involves watershed or other shared regional sources, but greatly enhances the viability of any resource planning.

The guidance document for preparing the Water Resources Plan Element can be obtained from the following website: <http://www.mdp.state.md.us/mgs/pdf/mg26.pdf>.

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ARM Enhances Water Resource Capabilities

Over the years ARM professionals have performed groundwater and surface water studies for hundreds of different sites with varying project objectives, and clients. These studies have focused on water quantity, quality, and supply. Additionally, the understanding of water resources management, protection, and assessment is critical to the continued sustenance and future development of our communities and the health of our surface waters and aquatic habitats. ARM's multi-disciplinary team of engineers, biologists, hydrogeologists, and geophysicists recognize the need for ever greater attention to source water protection, storm water management, and watershed conservation.

The public is also becoming aware of the need for water resource protection and planning. With this public awareness comes ever increasing regulation of storm water, erosion and sediment control, water quality, and other water resource issues. To address these concerns and regulations, ARM has added two senior water resource professionals to its staff. Senior Engineer, Chris Stahl, P.E., and Senior Biologist, Michelle Cohen have joined ARM to enhance the company's existing water resources capabilities.



Mr. Stahl has over 18 years of diverse civil and environmental engineering experience including experience in storm water management, stream restoration, and dam engineering. He has experience in permitting, modeling, design and construction of dams and

dam removals; natural stream channel design and stream enhancements; storm water management systems; and storm water Best Management Practices (BMPs). Mr. Stahl is responsible for senior leadership and technical guidance on water resources engineering projects and assistance in the development of ARM's water resources capabilities.

Ms. Cohen has over 19 years of experience as a biologist in the consulting field. She is experienced in aquatic and terrestrial resource investigations, state and federal water resource permitting and compliance, and habitat



management and monitoring. Her responsibilities entail coordination with resource agency representatives, participation in the public involvement process, and providing technical guidance to clients.

ARM's professional staff complement one another's skills and experiences resulting in innovative and cost effective solutions that address current water resource issues. Our creative approaches with regulatory compliance, planning, permitting, and engineering have provided our clients with solutions that work. Our areas of expertise are presented below.

For additional information about ARM's Water Resources services contact Chris Stahl, P.E. at 717-533-8600 or cstahl@armgroup.net.

Water Resources Management Services

- Storm Water Management Systems
- Best Management Practices (BMPs) and Low Impact Design (LID)
- Watershed Management and Flood Studies
- Stream Restoration and Mitigation Plans
- Natural Stream Channel Design
- River and Stream Geomorphology Assessments
- Bioengineering and Stabilization
- Erosion and Sedimentation Control
- Regulatory Permitting and Compliance
- Riparian and Wetland Planning and Design
- Wetland Creation, Enhancement, and Restoration
- Water Quality Assessment and Monitoring
- Dam Permitting, Design, and Quality Assurance
- Dam Emergency Action and Breach Plans
- Dam Removal and Monitoring

ARM Geophysics Locates Abandoned Gas Well

A West Virginia longwall mining company turned to ARM's Geophysics Division when it needed to locate an abandoned gas well in a proposed coal mine panel. Both state and federal mining laws have strict requirements regarding the plugging and proper abandonment of gas wells located within longwall mining panels. Consequently, mining companies often have to spend considerable time and money trying to locate abandoned wells in proposed coal mines. At times it is necessary to excavate extensive areas in hopes of identifying former wells that have not been properly abandoned or mapped.

The particular gas well in West Virginia was reported by an "Old Timer" who remembered that the well was somewhere on a site approximately 900 feet long by 75 feet wide. Excavating such a site would have required time that the mining company did not have. ARM conducted a magnetic survey of the area, processed the field data, and prepared a map within one day of arriving on the site. Based on the survey, a number of ferrous metal objects or targets were excavated, including an old drill rig tower that was buried nearly 10 feet beneath the surface. Knowing that such towers are frequently located near gas wells, further excavation was focused on the area of the tower.

The additional excavation unearthed the abandoned gas well under 12 to 15 feet of mine road spoil.

Use of the magnetic survey to locate the well required considerably less time than excavating the entire site. Furthermore, a site wide excavation might not have been conducted sufficiently deep to locate the gas well. A representative of the mining company told ARM that use of the magnetic survey saved the company more than half million dollars.

For additional information about ARM geophysical surveys contact Jeffrey L. Leberfinger at 717-533-8600 or jleberfinger@armgeophysics.net.



ARM geophysicist conducting magnetic survey

Lots of Changes in State College

The State College office of ARM has moved and grown. The office is located at the intersection of University Drive and South Atherton Street, at 1631 South Atherton Street (Bus. Rt. 322), in the PNC Bank Building.

In November 2007, two engineers joined the ARM State College staff. Kim Nelson, P.E. and Wendy Pelky, E.I.T. Mr. Nelson and Ms. Pelky will be focusing their talents on waste management engineering services. Mr. Nelson is a Senior Engineer with over 30 years of environmental engineering experience. He will manage ARM's landfill gas (LFG) design and air quality permitting projects. Additionally, he will assist many other types of industrial clients with remediation projects, industrial hygiene sampling/review, environmental/safety auditing, site development, storm water management, and design of Best Management Practices (BMPs).

Ms. Pelky has over six years of experience in environmental consulting, specifically solid waste management design and permitting; construction management and certification documentation; environmental assessment; and remediation design and permitting.

The phone number for the State College office is 814-272-0455. Mr. Nelson and Ms. Pelky can be reached via e-mail at knelson@armgroup.net and wpelky@armgroup.net, respectively.



ARM State College office building

Growth By Design

What will your community look like 20 years from today? With an eye on helping every community create a successful long-range vision for growth, the **Municipal Growth Element** requires municipalities to identify all the components that may affect their ability to achieve a vibrant, sustainable future. These factors include realistic population projections as well as careful and complete assessment of needed land capacity, infrastructure, and sensitive areas. In preparing this element, each municipality is required to consult with its county government. The county is then required to review the municipality's growth element.

Consistency with the Municipal Growth Element is also required of an "annexation plan," which now replaces the "outline" for the extension of services and public facilities prior to the public hearing for any annexation proposal. The requirement for an annexation plan and its submittal to the Maryland Department of Planning took effect October 1, 2006, and applies to any annexations that begin after October 1, 2009. No definition of "consistent" was included, so this may produce interesting interpretations.

Guidelines for preparing the Municipal Growth Element can be found at <http://www.mdp.state.md.us/mgs/pdf/mg25.pdf>.

Special Land Preservation

Supporting agriculture and forestry as important contributors to local economies, the Agricultural Stewardship Act of 2006 (House Bill 2) added a **Priority Preservation Element** that a county may include in its comprehensive plan. Designated Priority Preservation Areas must be capable of supporting profitable agricultural and forestry businesses and be governed by local policies that protect agricultural and forestry resources from development that would convert or compromise those land uses.

Counties with certified agricultural land preservation programs and those wishing to continue to receive certification funds from the Maryland Agricultural Land Preservation Fund must adopt this element by **July 1, 2008**.

Deadline Impacts Local Authorities on Re-Zoning

October 1, 2009 is also the deadline for county or municipal corporations to have adopted all the required elements of Article 66B, both new and old. Governing bodies may not change the zoning classification of any property until it has a plan in compliance with these requirements.

For additional information about modifications to Maryland's comprehensive planning process contact Philip E. McClain at 410-290-7775 or pmcclain@armgroup.net.

Recent Announcements

For more information about the following environmental law, go to the ARM website at www.armgroup.net and enter the Search Phrase, UEC.

New Uniform Environmental Covenants Act

Search Phrase UEC

In December 2007, the Pennsylvania Legislature passed the Uniform Environmental Covenants Act pertaining to property limiting requirements such as deed restrictions and access restrictions such as engineered caps and fencing. The most significant requirement of the new legislation states that the Pennsylvania Department of Environmental Protection (PADEP) must now review and approve all environmental covenants before they are recorded with each specific county.

Pennsylvania Plodding Toward Energy Policy

Although the political “powers-that-be” in Harrisburg all agree that Pennsylvania needs a comprehensive energy policy, there is little agreement on what the policy should include. In February 2007, Pennsylvania Governor Edward Rendell announced his Energy Independence Strategy. The strategy was designed to help reduce dependence on Middle East oil, cut pollution, conserve energy, and improve Pennsylvania’s economy. The Governor proposed an \$850 million dollar package of alternative energy and conservation initiatives to be funded with an additional utility tax on Pennsylvania businesses and homeowners and through a bond issue.

In June 2007, the Pennsylvania House supported most of the Governor’s strategy, by passing legislation coincident with the Governor’s Energy Independence Strategy. However, the House’s legislation did not identify a source for funding the initiative.

In response to the Governor’s strategy, the Pennsylvania Senate passed an Alternative Energy Investment Act in December 2007. In contrast to the House’s legislation, the Senate’s legislation, also known as Special Session Senate Bill 1 (SB 1), differs from the Governor’s strategy in several significant ways. Key differences include:

1. While Governor Rendell requested \$850 million for his strategy, the Senate allotted only \$650 million.
2. The Governor plans on funding his energy strategy through special fees on the electric bills of businesses and homeowners. The Senate proposes using dedicated revenues from the existing Utility Gross Receipts Tax and the General Fund.
3. The Governor plans to introduce the proposed energy funding into Pennsylvania’s economy over a three to five year period, whereas the Senate’s legislation spreads energy-oriented spending out over a ten year period.
4. The Governor proposes several requirements for the addition of bio-fuels, particularly ethanol, into gasoline and diesel fuel by 2017. The Senate passed two separate bills pertaining to bio-diesel incentives and requirements; however, it declined the Governor’s request to support ethanol requirements with tax incentives.

5. The Senate bill provides grants to help owners of coal-fired power plants buy equipment to meet federal and state pollution standards, while the Governor opposes such grants.

Extra Note: The Senate favors research toward the development of cellulosic ethanol, which is produced from plant waste, sawdust, paper pulp, and energy-specific agricultural crops such as switchgrass rather than from corn.

SB 1 was sent to the House for approval on December 18, 2007; however, it has not been passed by the House. It is anticipated that compromise sessions will be required for both houses of the General Assembly to pass a comprehensive energy bill. Despite political wrangling, we hope that 2008 will see the enactment of a progressive energy strategy for Pennsylvania.

Brian Brunette Promoted

Brian Brunette has been promoted to Operation Manager of ARM’s UXO Digital Geophysical Mapping (DGM) group, which is part of ARM’s Geophysics Division. He has taken on operational responsibility for the group, which performs geophysical services throughout the US and Canada. The UXO DGM group surveys buried Unexploded Ordnance (UXO) in support of RI/FS and removal actions. For additional information about ARM’s UXO DGM group services contact Brian Brunette at 717-533-8600 Ext 156 or bbrunette@armgeophysics.net.

New Warren Pennsylvania Office

ARM’s Geophysics Division has opened its Warren Pennsylvania office to service the oil and gas industry with borehole logging services. The phone and fax numbers for the office are 814-723-7390 and 866-601-1994, respectively. For additional information about the office and logging services contact Scott McQuown at the number above or at smcquown@armgeophysics.net.

Pennsylvania – Hazardous Sites Cleanup Fund Extended

In December 2007, Pennsylvania Governor Edward Rendell signed Senate Bill 1100 into law extending the life of the Hazardous Sites Cleanup Act Fund (HSCA Fund). Although this was an important step in providing the Pennsylvania Department of Environmental Protection (PADEP) with needed funding for emergency response and hazardous waste site remediation, it does not guarantee long term funding.

The HSCA Fund was established under the Hazardous Sites Cleanup Act, which gives PADEP the authority to respond quickly to eliminate threats to public health and safety when toxic chemicals and other hazardous substances are released into the environment or disposed of improperly. Prior to the passage of HSCA, PADEP had to wait for administrative and judicial review before responding to site cleanups. HSCA gives PADEP the authority to perform investigations and cleanups; require water supply replacement; and recover cleanup costs from responsible parties.

Although the Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also referred to as Superfund) provides for cleanup of specific hazardous waste sites, many sites in the Commonwealth do not meet CERCLA criteria for Federal assistance. Therefore, it was necessary for Pennsylvania to establish its own independent remediation program to comprehensively clean up sites in a timely manner.

In 2002, the Pennsylvania General Assembly voted to stop supporting the HSCA Fund in order to address the growing State budget deficit. Concerns that this lack of funding would disable the Land Recycling Program prompted actions to reduce HSCA Fund expenditures and extend the life of the Fund. Reducing expenditures resulted in stopgap funding, with inefficient project start-ups and shut-downs as funding became available and then waned.

PADEP Secretary, Kathleen McGinty, indicated that in its previous condition, the HSCA Fund would have run out of money by the end of the 2006-2007 fiscal year. With the signing of Senate Bill 1100, the HSCA Fund has been extended for the current fiscal year and through the next three fiscal years. The bill allocates funds from the Capital Stock and Franchise Tax, which expires in December 2010.



Environmental Remediation at emergency response site

Regarding the current status of the HSCA Fund, Governor Rendell has stated that “It does nothing to provide a stable, dedicated source of funds for hazardous site cleanup for the long term. It is a short term fix, and in a few years’ time we will face the exact same funding shortfall we have struggled with for almost my entire five years in office.”

Governor Rendell would like the HSCA Fund to be self-financed rather than pulling from the existing state budget, resulting in cuts to other programs. In 2004, he proposed the use of fees on toxic waste emissions and trash disposal to fund HSCA. Governor Rendell believes that this kind of fee system “would have ensured a permanent, reliable, and dedicated revenue stream for this critical program.”

Additional information about the HSCA Fund is available on PADEP’s website at <http://www.depweb.state.pa.us/dep/cwp/view.asp?a=3&q=513579>.

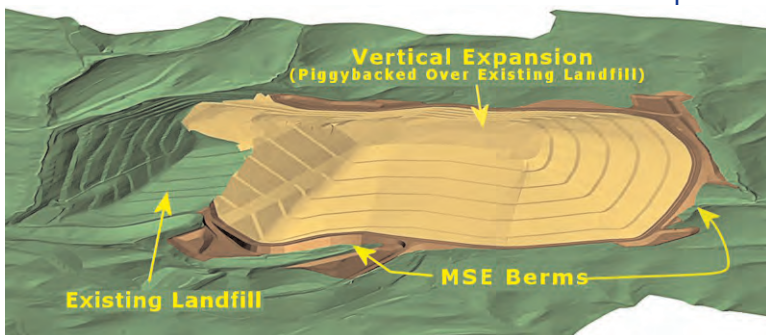
Just In Time For The Press

PADEP published revisions to the Land Recycling Program’s petroleum short list in the March 15, 2008, PA Bulletin. The revised list and associated requirements became effective on the 15th of March. For additional information about this revision, see “ARM News” at www.armgroup.net.

Permit Approved for Landfill Expansion

On December 7, 2007, the Pennsylvania Department of Environmental Protection (PADEP) approved an expansion for the Cumberland County Landfill. ARM prepared the landfill design and Phase I and Phase II Permit Applications, including the Harms/Benefits analysis for the expansion, on behalf of Interstate Waste Services (formerly North East Waste Services). The Harms/Benefits analysis was approved in August 2007. ARM's design involved a vertical expansion area, piggybacking over an existing landfill area, and a lateral expansion area. ARM designed a mechanically stabilized earth (MSE) Berm to optimize the volume to area geometry and permitted the rechanneling of two streams to make the Project feasible.

For additional information about this project and ARM's landfill design services, contact William S. Tafuto, P.E. at 717-533-8600 or wtafuto@armgroup.net.



Drawing depicting the vertical expansion and MSE Berms at the Cumberland County Landfill zones.

Coming Soon . . . ARM Energy Solutions

ARM Group Inc. (ARM) is pleased to announce that it will be launching a new business enterprise this spring called ARM Energy Solutions (AES). AES will operate as a stand-alone business under the ARM umbrella and will focus on providing services primarily to commercial, industrial, and municipal clients that are interested in developing energy resources needed for their own facilities or to sell. AES will provide full service consulting, design engineering, and installation/construction-phase services for photovoltaic (solar) systems, wind energy systems, and geothermal heating/cooling systems. AES will integrate ARM's other energy-related services such as landfill gas-to-energy engineering; ARM Geophysics' oil and natural gas borehole logging and analysis services; and Chicago Climate Exchange (CCX) landfill methane gas verification services. Additionally, AES will offer Climate Action Planning consulting services to assist businesses, municipalities, counties, or other governing bodies in tabulating their greenhouse gas emissions (GHG) and providing strategies for GHG emission reductions.

ARM Energy Solutions will be based out of ARM's Hershey, Pennsylvania main office, but its service offerings will extend to the markets served by ARM's State College and Columbia (MD) offices, and its Geophysics Division. Look for the launch of a new website in the coming months at www.armenergysolutions.net. For additional information about this new business unit contact Bryan Wehler at 717-533-8600 or bwehler@armgroup.net



The ARM Group is a technically-oriented earth sciences and environmental consulting firm. ARM provides clients with senior technical counsel and support in:

Environmental Liability Management;

Environmental Compliance Management;

Restoration and Re-Development of Impaired Properties;

Solid Waste Management Engineering;

Civil and Geotechnical Engineering Services;

Water Resources Planning and Management;

Ecological Studies and Permitting;

Renewable Energy Development; and

Geophysical Services/Non-Intrusive Subsurface Investigation.

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