2010 Current Environmental Issue

“PROTECTION OF GROUNDWATER THROUGH URBAN, AGRICULTURAL AND ENVIRONMENTAL PLANNING”

Access to clean and safe drinking water is essential to a healthy and thriving community. If a safe drinking water source is compromised or lost, there would be harmful consequences to human health, the environment, and the economy. These losses can be prevented or mitigated to protect current and future sources. Once groundwater is polluted, it will remain that way for decades. The potential for contamination and the high cost of treatment and expense of locating or developing alternate sources make it imperative for government entities to adopt and implement effective strategies for long-term protection. This is especially true for any area dependent on groundwater as its sole source for drinking water.

Many factors, including increasing populations and extensive development, put stresses on groundwater supplies. These include the use of pesticides, fertilizers, animal manure, and storm water runoff which contains metals, nutrients, salts and other chemicals that can leach into groundwater basins. Local governmental planning agencies generally focus on priorities such as land use development (e.g., residential and commercial), infrastructure needs (e.g., roads, wastewater treatment, etc.), the local economy, and a good jobs-per-housing ratio. Planning for groundwater protection often receives insufficient attention for addressing periods of drought, water conservation and efficiency, pollution prevention, recharge zones, surface water management and conjunctive use, storm water management, and future water needs. Due to its nature, most communities have no clear understanding of how much groundwater is available.

Efforts to monitor and assess groundwater quality and quantity have typically been sporadic and, while successful in some local jurisdictions and watersheds, largely inadequate, due primarily to high cost. More reliable, consistent, and comprehensive data are needed to sufficiently characterize groundwater quality/quantity to support critical decisions and policies for use, protection, and management.

Policy makers at all levels of government will be faced with the need to make difficult decisions regarding alternatives and trade-offs to planning future development and managing growth:

- How do public officials determine priority use when allocating a limited water supply?

- Should urban uses have priority over agriculture?
- Should agriculture have a higher priority which may preclude or limit urban growth?
- What about environmental uses such as maintaining instream flows, aquatic life and habitat?
- What is the role of storm water management?
- What is the link between threats to both surface and groundwater quality/quantity?
- How can they best be addressed?
- Who should have jurisdiction to oversee the protection and management of large groundwater basins for both quality and quantity (e.g., recharge)?
- What are the consequences of poor planning, unreasonable decisions, and lack of effective actions?
- How can public officials address future threats to surface and groundwater resources?