

## **Protecting Our Drinking Water Source**

### **City of Rosenberg Organizes Source Water Protection Program**

*This article is the first in a series on drinking water and protection programs available to assure a safe, potable supply of drinking water for City of Rosenberg.*

One of the most basic needs of any community is safe and clean drinking water. More than 35,835 people rely on the quality of drinking water provided by the City of Rosenberg and its source of water, the Gulf Coast Aquifer. The Texas Public Water Supply Regulatory Program is administered by the Texas Commission on Environmental Quality and has a proud legacy of public health protection that dates back to 1913. The dominant characteristic that has sustained the program through the decades has been the cooperative partnership with public water suppliers, river authorities, and groundwater districts. Texas is a nationally recognized leader in water treatment, design and operational criteria, water system operator training and certification, and source water protection, just to name a few.

“Clean, clear water makes it possible for us to enjoy the food we eat, the conveniences we have and the pleasures of everyday life. Protecting this vital resource is the responsibility of all of us,” said City of Rosenberg Assistant City Manager of Public Services John Maresh.

If our water is good, why do we need a special program to protect it? The reason is that the situation has been changing dramatically during recent decades. Our source of

drinking water has the potential to be endangered by new chemicals or microbiological contaminants.

Concurrently, our ability to detect contaminants has been improving. Modern science can now identify specific chemicals in terms of one part contaminant in one billion parts of water.

One part per billion is equivalent to one kernel of corn in 12,500 bags of seed corn or one second in 32 years. In case you think such small amounts can't be very significant, keep in mind that you can get sick from a single microscopic virus.

Although we currently know a great deal about the health impacts of drinking water contamination, many questions remain. Ongoing research will no doubt provide new information which will answer some old questions and generate some new ones.

Meanwhile, the citizens that rely on the City of Rosenberg and the Gulf Coast Aquifer can take steps to reduce the risks to our health.

Most of us would agree that a vaccination to prevent illness is well worth the time, expense, and inconvenience. Similarly, communities are using Source Water Protection Program methods to prevent drinking water supply contamination.

Communities across the state have found that the less polluted their water is before it reaches the treatment plant, the less extensive and expensive the efforts needed to safeguard the public's health.

A Source Water Protection Program is a program that prevents the pollution of the surface and ground water that serve as sources of drinking water. The program includes delineation of the protection area, identifying various *potential* sources of contamination that may impact the delineated area, implementation measures to manage these sources, and planning for the future.

Source Water Protection helps safeguard *community* water supplies. It is a program that belongs to and is managed by the local community. Unquestionably, communities are the key stakeholders in Source Water Protection.

It is people living and working in communities who have the most to gain or lose from the quality of their drinking water.

The benefits to communities protecting their drinking water source might be best understood by describing the costs of failing to protect the source. Easily quantifiable costs of drinking water protection include treatment, remediation, finding and establishing new water supplies or providing bottled water, consulting services and staff time, legal costs of litigating against responsible parties, and conducting public information campaigns.

Communities with effective Source Water Protection Programs may also enjoy substantial savings in costs of complying with Safe Drinking Water Act regulations. This is because cleaner sources of raw water require less disinfection, which means reduced requirements for removing disinfection by-products.

Other benefits of Source Water Protection that can be expressed in economic terms are helping to maintain real estate values in areas served by protected water supplies and

avoiding loss of potential tax revenues and jobs because businesses refuse to locate or remain near places with known or suspected problems. Ask yourself the question, “Who wants to move a business or industry to a town where they can look to pay tax toward a multimillion-dollar bond issue to clean up the drinking water?”

Source Water Protection can have important secondary benefits as well. The protection of surface water supplies is obviously beneficial to fish, wildlife, and recreation. We also must include the reductions in risk to human health which result from cleaner drinking water.

Maresh said that “Source Water Protection can be effective only if every citizen and business in the area joins in. A partnership must be formed between all of the communities in the area, citizens, farmers and ranchers, and local businesses to assure that our drinking water supply remains safe.