

Conservation as Source Water Protection

By Tom O'Connor, PE

The many valuable benefits of source water protection are readily apparent to those in the water supply industry. Effective source water protection efforts can greatly reduce treatment costs while protecting public health and natural resources.

While many threats to our source water are readily apparent, some are less so. For example, even our own withdrawals for purpose of water supply pose a potential threat to our source waters. If our withdrawals exceed the rate at which our reservoirs or ground waters are replenished, we run the risk of depleting our supplies. If, subsequently, we are forced to dig more or deeper wells, we increase both capital costs and pumping costs. If we pump a well harder and more often, we tend to increase the size of the area of influence around the well.

Particularly with wells that are shallow, alluvial, or otherwise vulnerable, increased pumping has the potential to introduce additional contaminants to our water, resulting in increased risk and/or treatment costs.

Due to this linkage between withdrawal quantity and source water quality, conservation is, in itself, a form of source water protection.