

WATER – A PERSONAL RESPONSIBILITY

The Campo/Lake Morena Planning Group
Basin(s) Water Study Subcommittee
Water Quality Working Group

Campo--We all should be concerned about our water. If you live west of Willows Road then you are part of the Metropolitan water district and receive your water mainly from imported sources. Water is brought in from the Colorado River and also from Northern California. The majority of the land area in the county though is “ground water dependent.” We rely on personal wells and small water districts to supply this resource.

The Campo/Lake Morena Planning Group has formed a “sub-committee” to study this and to suggest possible actions that will benefit the area. One of the “working groups” under that “sub-committee” is primarily dealing with “water quality.”

The working group has concluded that contaminants in groundwater fall into two major categories. There are naturally occurring contaminants and there are pollutants introduced by the presence of humans.

In the Campo/Lake Morena area, it has been concluded, that there are four naturally occurring contaminants we need to be concerned with. They are: iron, manganese, gross alpha and uranium. As a part of San Diego County’s environmental impact report for the 2020 General Plan, they will identify areas where significant amounts of these elements are present. This will be mapped for the whole county and will be apart of the public record.

Human introduction into our area has produced another four contaminants in the groundwater supply. Those are bacteria, nitrates, VOC (Volatile Organic Compounds), and TDS (Total Dissolved Solids). It should be noted that some of these pollutants are dual in occurrence. They can be both natural, and introduced.

Naturally occurring contaminants are not within our control, but we can treat for them. Iron and manganese can be treated with something as simple as an active charcoal filter. Gross Alpha and uranium are treatable but not economically feasible for the individual well owner. The treatment is expensive and requires quite a bit of work. **These compounds and elements naturally occur and we have little or no control over their presence.**

Human introduced contaminants are different and each has a story. A bacterium comes most often from faulty designed or malfunctioning waste water treatment systems (septic systems or improperly maintained water distribution systems). Nitrates usually are introduced by faulty management of fertilizers and farm animals. Nitrates are also produced by a high density of septic systems in close proximity to one another, i.e. Lake

Morena. When the residential density is more than one septic system per 2.5 to 3 acres, nitrate levels in the groundwater **will** increase. VOC are usually caused by toxic spills or improper dumping of waste materials. TDS is “the total concentration of dissolved minerals within the water.” Elements such as sodium and calcium are examples of such elements. These minerals are normally present in our groundwater and are naturally occurring. However they can be concentrated to usage levels as a result of human activities. As an example, when ground water is used for irrigation for grasses a significant portion of the water (50-90%) is lost into the atmosphere as a result of evaporation and transpiration. The remaining water (called irrigation return flows) has a much higher concentration of salts since all the water going into the air is pure (distilled) water without any salts. Thus most all of the salts are concentrated within the system and the overall water quality is measured by TDS declines corresponding to the salt content.

The working group thinks there are three steps we could take to assist our neighbors in understanding how to be responsible for the quality of the ground water in our area.

- Develop a program and write several articles that will deal with “Basic Water Supply Systems” and “Basic Waste Water Treatment Systems.”
- Develop a program and write several articles that deal with the types of contaminants (natural and man made).
- Develop a program and write several articles that deal with water testing not only from the well head, but also testing the total system. Plumbing does play a large role in our water quality. This program and articles will stress the personal responsibility of each individual in maintaining and insuring that the water they consume is safe. This is something we do not expect to have done by the county. We have an individual responsibility to maintain our wells and the water rights on our own land parcels.

This article is the first in a series of articles that this “working group” is willing to write for your information. We will continue if feedback that tells us that this is a benefit to our community. Please let us know by visiting our web site, campogroundwater.org and use the feed-back option to write to us on your concerns about ground water.