ARROWS AND CIRCLES INDICATE DIRECTION AND MAGNITUDE OF CHANGE

The explanation box can be collapsed to display more of the mapped area.

The explanation box explains the arrows and circles that appear at the network centroid, displaying the statistical results.

Clicking the text "Arrow size relative to benchmark" opens a dialog describing what a relatively large and relatively small change is for each constituent, both as a percentage of a benchmark or as a concentration.

The size of the arrow indicates the magnitude of change for networks with statistically significant changes.

Networks without any statistically significant change are displayed as a solid circle.

Networks with insufficient data for analysis are displayed as hollow circles.

EXPLANATION

Arrow size relative to benchmark

Change in Network Concentrations

Relatively large increase

Relatively small increase

No significant change

Relatively small decrease

Relatively large decrease

Trend data not available

Results of the statistical analysis for each well network were classified as indicating a statistically significant increase, a statistically significant decrease, or no significant change. Results were further classified as being "relatively large" or "relatively small" changes to provide context for the results. A statistically significant change for an individual network is displayed on the mapping tool by an arrow pointing up or down. One point on the map represents a network of multiple wells. To provide context, the median change between the first and second sampling events was calculated for each well network with a statistically significant change, and the median was compared to the benchmark (MCL, SMCL, or HBSL).

For inorganic constituents, if the median change was greater than 5 percent of the benchmark, the change was considered relatively large. If the change was less than or equal to 5 percent of the benchmark, then the change was considered to be relatively small. For organic compounds, if the median change was greater than 1 percent of the benchmark, the change was considered relatively large, and if the change was less than or equal to 1 percent of the benchmark, then the change was considered to be relatively small. This approach provides a way to distinguish very small but statistically significant changes from changes that are of a larger magnitude.

Organic constituents are treated differently than inorganic constituents because the organic constituents are generally introduced to the environment as a result of human activity, whereas most of the inorganic constituents are found naturally at some level. In some cases, networks had statistically significant changes, but the median change between sampling events was zero. In those cases, the data were analyzed graphically to determine whether the change was a decrease or an increase, and the change was considered to be relatively small.

Networks with insufficient data to analyze are displayed with a similarly sized open circle; this could be because fewer than 10 pairs were available or because a constituent was sampled in one sampling period but not in the other.