

# People's Health

Outcomes • Planning • Evaluation



## Know the Facts: Fecal Contamination of Public Water Systems

### DID YOU KNOW?

- E. coli is short for Escherichia coli. E. coli is a bacteria that is present in human and animal wastes.
- During rainfalls, snow melts, or other types of precipitation, E. coli may be washed into creeks, rivers, streams, lakes, or ground water.
- Only a few strains of E. coli are harmful to humans and can cause severe illness.
- Children under the age of five, the elderly, and people whose health is immunocompromised (i.e., people who have long-term illnesses such as cancer or AIDS) are at greater risk of severe illness.
- Presence of E. coli in drinking water suggests fecal contamination and might indicate the presence of other disease-causing organisms.

### WHERE WE WERE (BASELINE):

In Shasta County, 6 water systems tested positive for E. coli in 1999.

### WHERE WE ARE:

In Shasta County, 1 water system tested positive for E. coli in 2013.

### WHERE WE ARE AIMING (HP2020 GOAL):

Not established.

### DEFINITION:

**Coliforms** are bacteria found in plant material, water and soil. Coliforms are also present in the digestive tracts and feces of humans and animals.

Total coliforms is another term for the full group of coliforms. They are indicators of possible water contamination.

Fecal coliforms are one type of coliform bacteria that is found mainly in animal digestive tracts and feces. Fecal coliforms are a more specific indicator of fecal contamination of water.

E. coli (Escherichia coli) is a species of fecal coliform bacteria. E. coli almost always comes from animal feces. E. coli is considered the best indicator of fecal water contamination. If E. coli is present, harmful bacteria or other pathogens may also be present.

**The Total Coliform Rule**, a National Primary Drinking Water Regulation, was published in 1989 and was revised in 2013 by the U.S. Environmental Protection Agency. The rule set both a health goal (maximum contaminant level of zero coliforms) and legal limits (maximum contaminant levels of coliforms in no more than 5% of monthly samples taken) for drinking water.

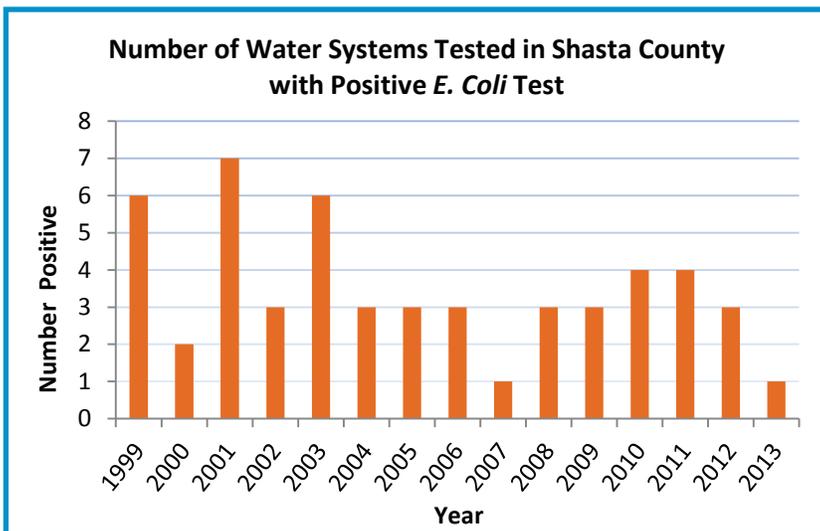
When a routine or repeat sample tests positive for coliforms, it must also be analyzed for fecal coliforms or E. coli, which are types of coliform bacteria that are directly associated with fresh feces. A positive result for fecal coliforms or E. coli can violate the maximum contaminant level, which necessitates rapid state and public notification because it represents a direct health risk.

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Find more health information at [www.shastahhsa.net](http://www.shastahhsa.net). Click on "Health and Safety," then "Current Health Concerns." Questions? Email [shastahealthdata@co.shasta.ca.us](mailto:shastahealthdata@co.shasta.ca.us)

## KEY POINTS:

- In 2014, there were 142 small public water systems and 14 state small water systems under the Shasta County Department of Resource Management jurisdiction.
- The number of water systems testing positive for E. coli in Shasta County ranged from 1 to 7 per year during 1999-2013.



- California Regulations Related to Drinking Water (revised in July 2014) states the number of routine water samples examined for coliform count to be between 1 and more than 480 per month, depending on the number of people served.

## PRIMARY PREVENTION ACTIVITIES:

- Dispose of human waste per guidelines (e.g. septic systems) from Shasta County Department of Resource Management - Environmental Health Division, 1855 Placer St., Suite 201 in Redding, (530) 225-5787. Learn more at [www.co.shasta.ca.us/index/drm\\_index/eh\\_index.aspx](http://www.co.shasta.ca.us/index/drm_index/eh_index.aspx)
- Repair damaged sewer lines.
- Regularly test well water for the presence of fecal coliforms, E. coli and total coliforms.
- Maintain proper distances between drinking water sources and septic systems, sewer lines, animal enclosures and other water sources.
- Maintain water treatment and disinfection systems in good working order.

### From the Desk of Andrew Deckert, MD, MPH

*Shasta County  
Public Health Officer*



Healthy and safe drinking water is important to everyone. Water should be free from contamination, including coliforms like E. coli. Contaminated drinking water can make people extremely ill, and people who get sick can pass along the disease to others in a number of ways.

Shasta County Public Health's lab can test for harmful bacteria in private or public drinking water. Water testing kits are available at the Shasta County Health and Human Services Agency's regional offices and at the main office at 2650 Breslauer Way. This is an easy way for you to ensure that your water supply is healthy. You can learn more at [www.shastahhsa.net](http://www.shastahhsa.net) - click on "Health and Safety," then "Laboratory Services."

***To your health!***